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CANNER PACKER
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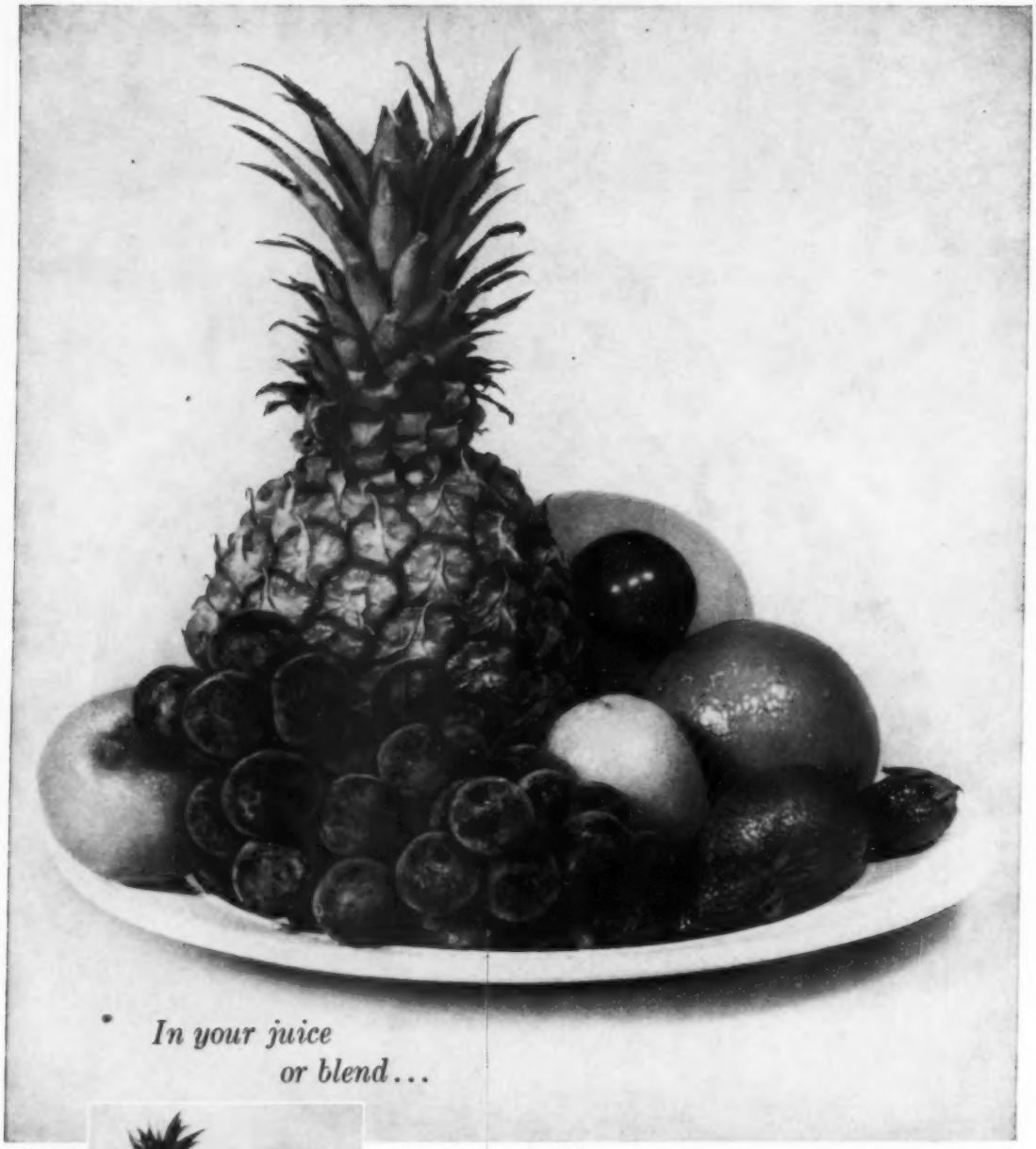
OCTOBER 1, 1961

Five methods are under test to make freshwater from salt water 31

Texas firm freezes banana puree for manufacturing market 44

California glass packer completes mechanization of olive line 38

Keep Faith With Nature—Guard Her Goodness



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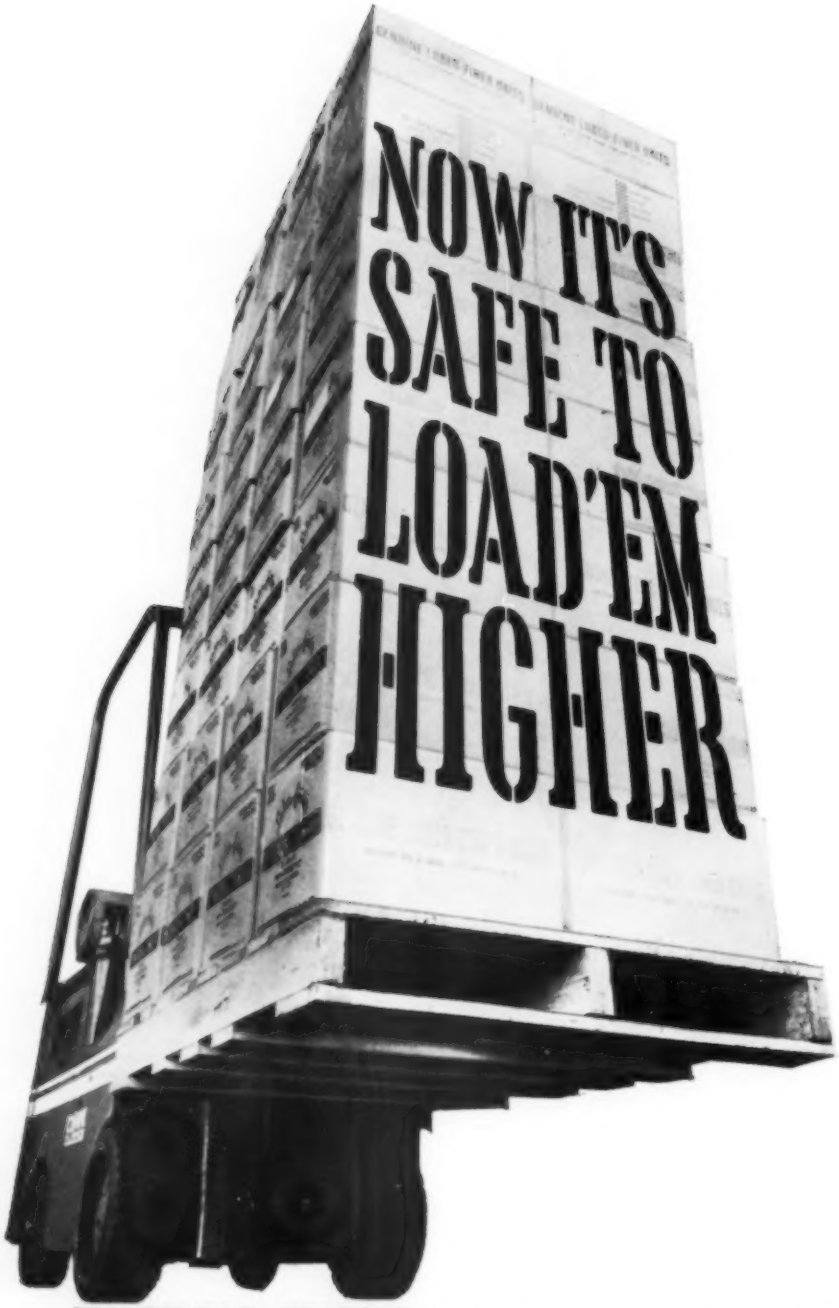

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Western Edition

CANNER PACKER

volume 130, number 11 **OCTOBER 1, 1961**

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COVER: Packing green olives can involve a great amount of hand-labor or can be highly mechanized. This month's cover illustrates the former point, for it shows two lines of women carefully place-packing green olives in a department recently installed by Pacific Olive Co., Visalia, Calif. However, Pacific also packs its fruit on a line with a considerable degree of automation, as is demonstrated in the article in this issue which begins on page 38.

FEATURES:

Fresh Water Is Made From Salt Water 31
Five processes for reclaiming ocean water and brackish water are under test by the U. S. Dept. of Interior.

How Musselman Labels Cans and Jars, Seals Fibre Cases with Speed and Efficiency 36
C. H. Musselman Co., Biglerville, Pa., takes the guesswork out of labeling, casing by research and production planning.

Packing Olives the Modern Way 38
Pacific Olive Co., Visalia, Calif., has a new tumble-pack filler which completes mechanization of packing line.

Oklahoma Firm Mechanizes Dry Food Packing with One New Machine 40
Griffin Manufacturing Co., Muskogee, Okla., combines five steps in packing into a new Bagmaster machine.

Frozen Banana Puree Is Success in Texas 44
Pan-Am Foods, Inc., Brownsville, Tex., imports bananas, packs and freezes puree for manufacturing market.

How to Stop Concrete Floor Corrosion 56A
Gerber Products Co., Oakland, Calif., uses an epoxy surfacing compound to old and new surfaces.

EDITORIAL: We can Help Our Post Offices to Serve Us Better 64
One sure way to improve mail service is to get the mail out before 5:00 p.m.

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In Coming Issues: *Frozen rabbit is a big thing for an Arkansas firm . . . Rock salt is used in canning sea foods . . . Funny tea bags help sales.*

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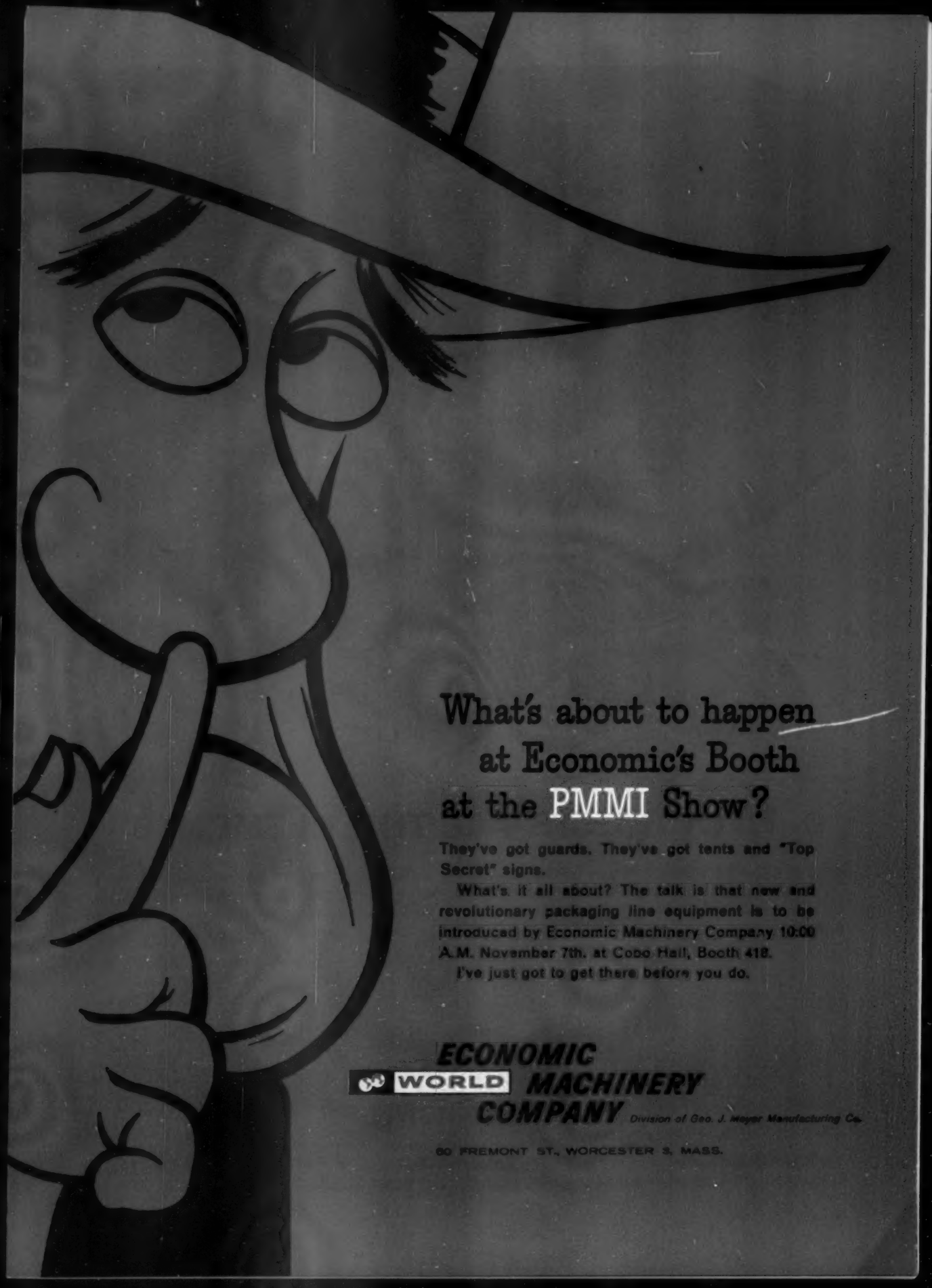

What's about to happen at Economic's Booth at the PMMI Show?

They've got guards. They've got tents and "Top Secret" signs.

What's it all about? The talk is that new and revolutionary packaging line equipment is to be introduced by Economic Machinery Company 10:00 A.M. November 7th. at Cobo Hall, Booth 418.

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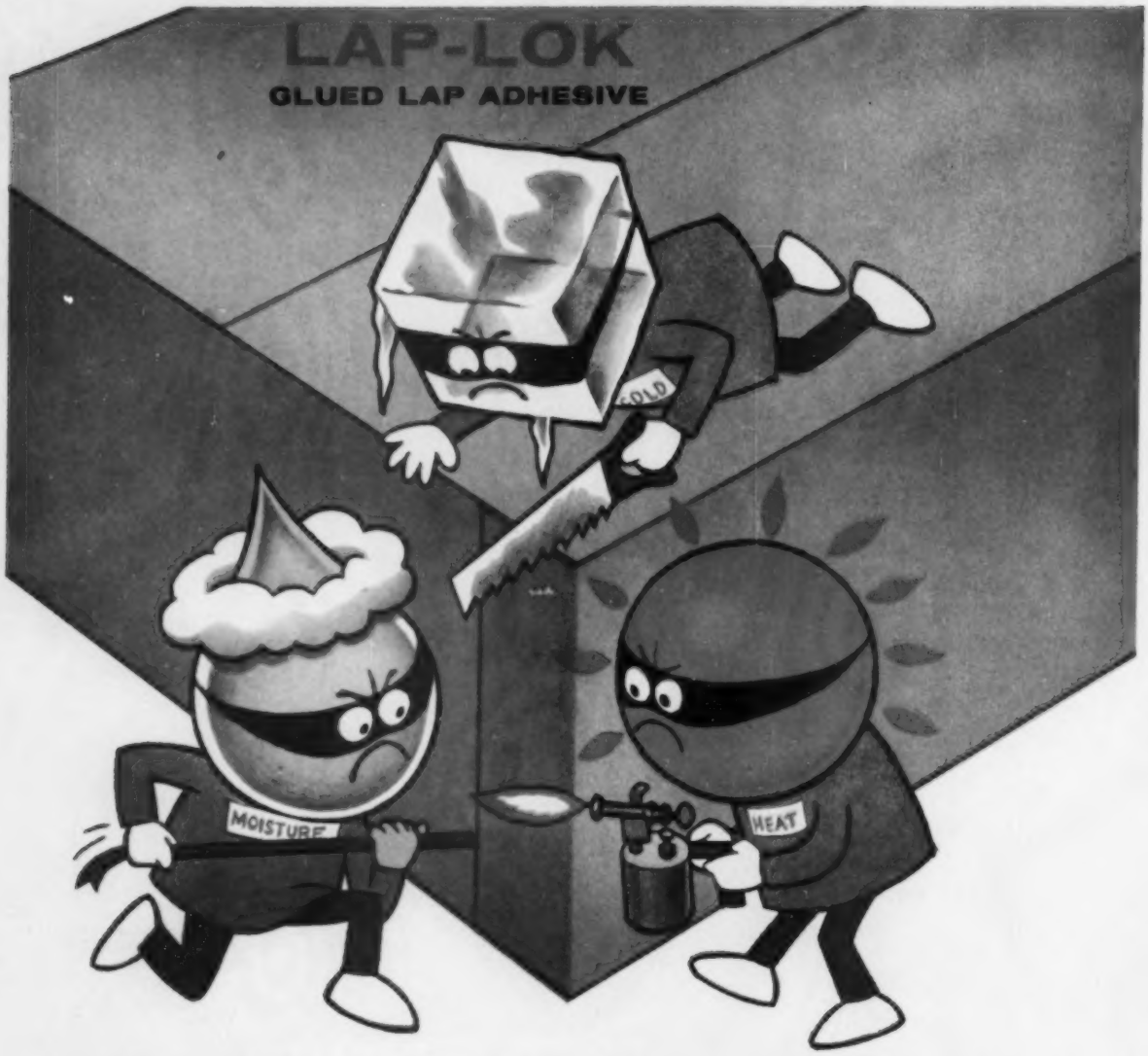

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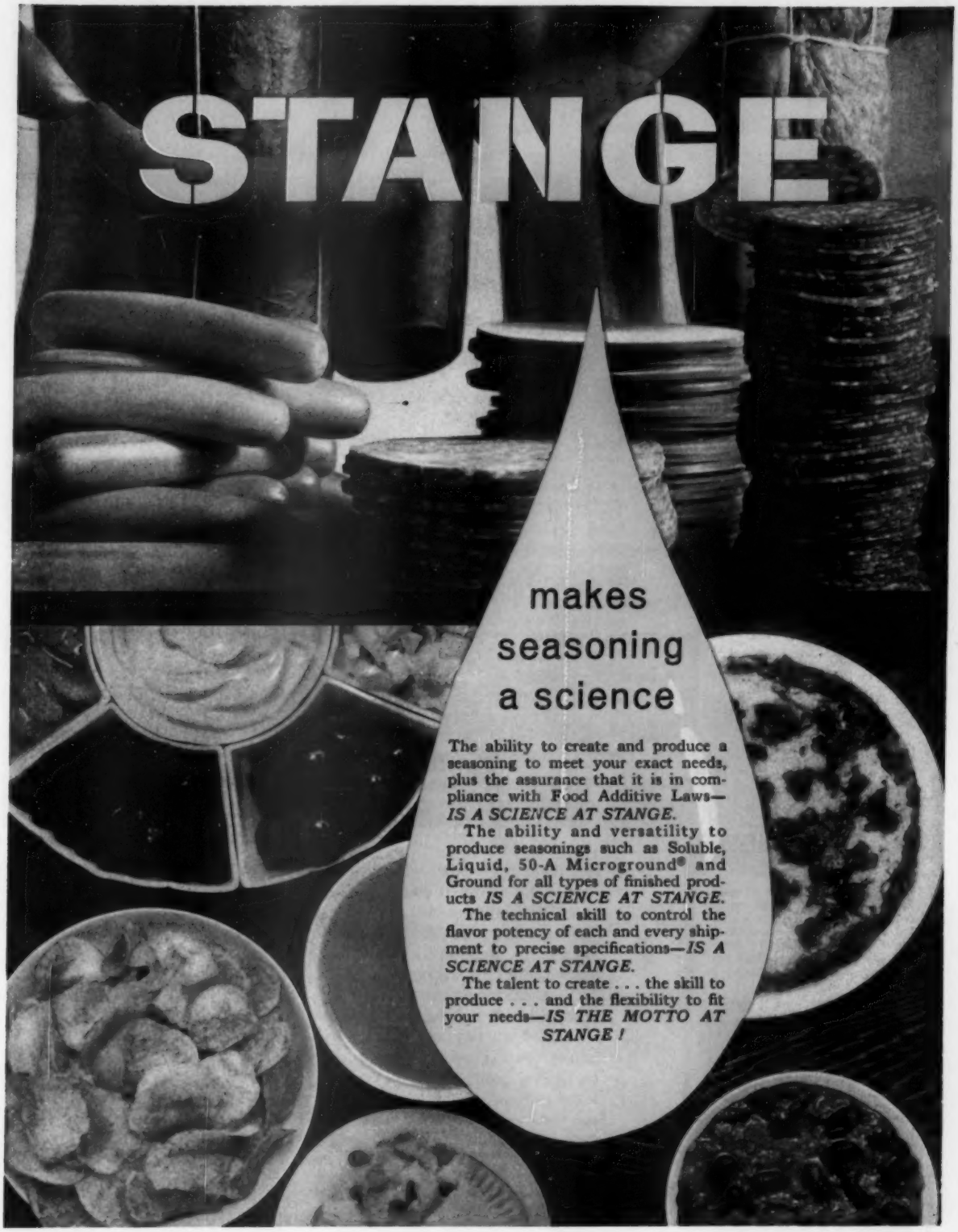
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CREAM OF SPICE SOLUBLE SEASONING® *PEACOCK BRAND CERTIFIED FOOD COLOR®*

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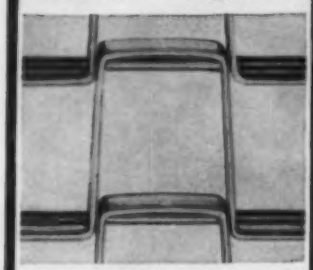

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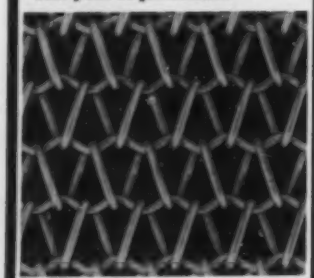

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Whatever the foods—whatever the processing operation, Cambridge Flat Wire Belts can help you boost production, cut operation costs and maintain high quality standards. Here's how. ■ Large, open mesh allows air or liquids to flow through the belt and around the product for quick, thorough processing. ■ Smooth, flat belt surface carries bottles, cans, cartons, or jars without tripping or spilling, permits easy transfer of products on and off belt. ■ All-metal, anti-corrosive Cambridge Flat Wire Belts permit easy sanitation. ■ Belting can be steam cleaned while in motion to save time. ■ Rugged, quality construction assures longer belt service life, less maintenance, fewer repairs, a minimum of production downtime. ■ Belts may be driven positively with Cambridge sprockets or frictionally with flat-faced pulleys. ■ **For full information on how Cambridge Flat Wire Belts can help you process more high quality foods at less cost to you, call your Cambridge Field Engineer. He's listed in the Yellow Pages under "Belting, Mechanical." Or, write direct for technical data.**

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CANNER PACKER / BUSINESS NEWS LETTER
totally dedicated to serving canned, dry, frozen, glassed food processors

October, 1961

Watch the developing boom in bomb-shelter kits, as Soviet Russia becomes increasingly ugly in her words and actions. Most-publicized units contain dehydrated soups, meats, and grain products, plus cans of distilled water, some of the latter including inner bags of polyethylene tc help insure absence of corrosion. Some feature special food formulations (General Mills multi-purpose food, modifications of the 900-calorie diets). So far not much has been done about offering assemblies of canned foods, but since these can provide nutrients and moisture together, and since they do not need to be moved around (and hence weight and bulk are not deterrents), greater interest in such conventional products may be expected.

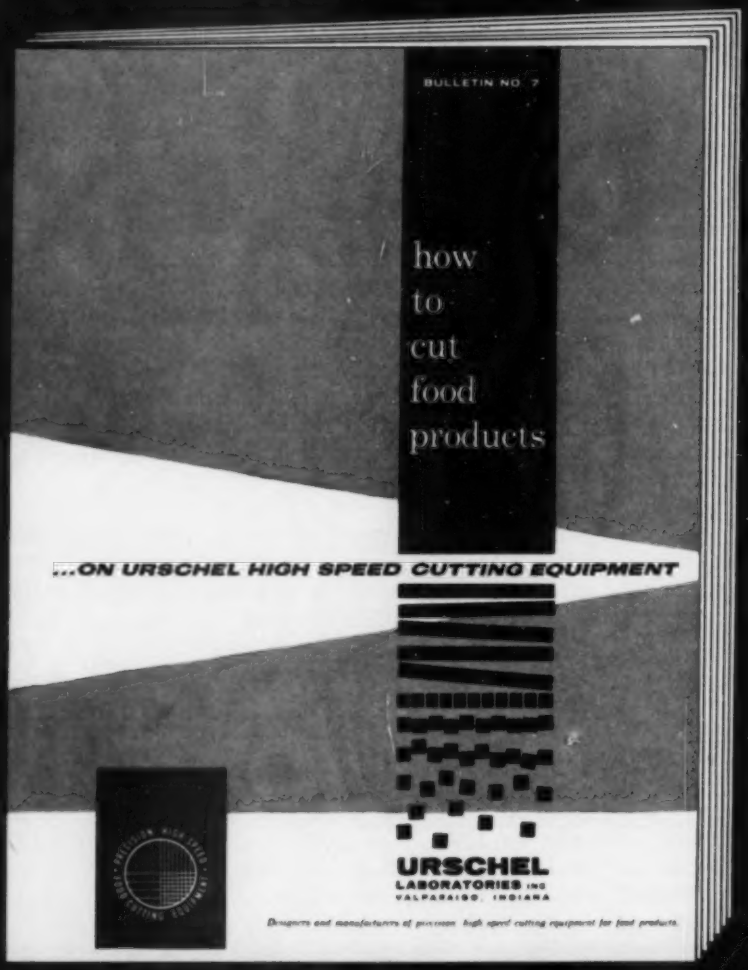
More money will be spent for overseas facilities by U. S. food manufacturers, U.S. Dept. of Commerce reveals. The annual expenditure for building and equipping canneries, freezers, dehydration units and other food packing plants went up from $78 millions in 1957 to $90 millions in 1958. It dropped back to $82 millions in 1959, but climbed again to $97 millions in 1960. In 1961, it is estimated at an impressive $142 millions, and the minimum for 1962 is predicted at $112 millions. Such projects are largely carried on by major U. S. Manufacturers, but an increasing number of smaller packers are becoming interested. The investments shown are only part of the expenditures for equipment and supplies, since many of the operations are joint ventures in which foreign capital may equal the U. S. funds.

Moving air is rapidly becoming a structural tool in the processed food business. In the frozen food field, several manufacturers are working on vertical retail display cabinets, whose cold area are protected from the warm store atmosphere by a moving wall of air. In hundreds of processing plants, insects and dirt are kept out of food areas by similar air curtains which fans throw across doorways. Sterile air forms a bacteria-proof gasket in at least one type of processed food packing operation. Most recent entry into the field is a firm called Dyfoam, Inc., which has a quickly-installed unit for providing an air curtain across passageways into refrigerated areas.

Poultry is in the middle of at least three major revolutions today, and perhaps four. First, as late as 1947, the U.S. obtained two-thirds of its 21-lb. per capita supply of poultry from "farm chickens-byproduct fowl and cockerels secured incidental to egg production. Today, 80% of the supply is from specialized broilers and other fowl grown expressly for food use. Secondly, poultry threatens to challenge pork as the No. two source of animal protein in this country. In 1940, per capita supplies of such foods included 69 lbs. of pork, 50 lbs. of beef, 18 lbs. of lamb, 17 lbs. of poultry and 12 lbs. of fish (a total of 165 lbs., of which poultry was 11%). In 1960, says Edward Karpoff of USDA, the protein supply per capita consisted of 73 lbs. of beef and veal, 61 lbs. of pork, 35 lbs. of poultry, 17 lbs. of lamb and 12 lbs. of fish (a total of 198 lbs., of which poultry was 18%). Thirdly, more and more poultry is being marketed in frozen form. Chickens, turkeys and other poultry slaughtered under federal inspection and then frozen amounted to 1,074,000,000 lbs. in 1958--increased to 1,188,000,000 lbs. in 1959--reached 1,267,000,000 lbs. in 1960. The fourth revolution is in poultry processed into canned meats, soups, frozen pot pies, etc. Quantities under USDA inspection have increased from 227 million lbs. in 1957 to 261 in 1958, to 288 in 1959, and to 404 in 1960.

Cutting keeps changing ...so does our book*

IT WAS JUST REVISED



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This page was prepared in its entirety by Muirson Label Co., Inc.—San Jose, Calif.; Peoria, Ill.; and Meriden, Conn.

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DIAMOND CRYSTAL FLAKE-TYPE SALTS
help "Freshlike" canned vegetables taste fresh!

Running a salt determination test in the laboratories of The Larsen Company, Green Bay, Wisconsin. Left to right, Dr. B. R. Suri, Head of Research and Development; Jim Selbee, Diamond Crystal's Ass't. Manager Industrial Sales and W. M. DeBaker, Plant Superintendent.

Diamond Crystal Flake-type Salts help "Freshlike" canned vegetables to taste just as their name implies —fresh!

In the processing of canned foods, a good pack depends upon the purity of the various ingredients used. That is why Diamond Crystal Flake-type Salts, made by the exclusive Alberger process, assure a flake-like crystal of extremely high purity—99.95%. Precision screening provides a wide range of sizes to meet all requirements . . . uniform in the size and grain you need—every time. This high purity and controlled size represents a unique margin of difference over ordinary granular-type salts.

Diamond Crystal Flake-type Salts contain less than 20 parts per million insolubles. Filter pad tests consistently indicate that it has the lowest content of insoluble matter or foreign material of any canning salt. The low content of calcium, magnesium and trace metals provides the required purity that permits still further up-grading of your product.

The unmatched purity of this salt avoids reaction with oxalates and formation of white precipitate. Because of this, Diamond Crystal Flake-type Salts bring out the natural flavor of your product.

Learn exactly how these product features can benefit you. Call or write the nearest Diamond Crystal sales office.

Diamond Crystal Salt Company

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LETTERS FROM READERS

New Overseas Firm Is Interested in Equipment

I am interested in obtaining equipment for a new plant of medium capacity for the manufacture of:

- Salted nuts as cocktail delicacies in consumer packs of vacuum lithographed tins of 4 and 8 oz.
- Peanut butter, also in consumer glass and/or plastic containers.
- Finely ground spices (pepper, ginger, cinnamon, clove, cury, etc.) in small consumer packs.

ABNER BOUZAGLO

Boite Postale 299, Casablanca, Morocco, North Africa.

● Readers are invited to write to Mr. *Bouzaglo directly*—Ed.

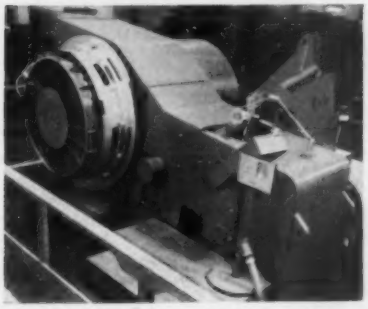
Aluminum Cans in Taiwan

Last week I brought the matter of manufacturing aluminum cans to the Industry Development Board. It was my pleasure to be informed that U.S. dollars could be made available to procure a pilot-sized plant for an aluminum metallurgical and can-forming operation.

The Board considers that the development of aluminum cans for fish and meat canning should receive high priority, and will take prompt action.

T. S. PANG

Sponsor, Food Technology Demonstration Center, National Taiwan University, Taipei, Taiwan.



UNIT FORMS ALUMINUM CANS by the extrusion method.

Machine Manufactures Aluminum Cans

We have built a prototype machine for the manufacture of aluminum cans by the impact extrusion method. However, we do not have printed literature available at this time for distribution. We are now in the process of preparing such material. Until all design components were decided upon, we did not want to publish a bulletin. When this is available, we will be pleased to send you copies.

I am enclosing a photograph of the machine for your general information. Thank you very much for your interest.

R. E. DAHLBERG

Advertising manager, Verson Allsteel Press Co., 1355 E. 93rd St., Chicago, Ill.

● *Canner/Packer had received overseas inquiries regarding the availability of such a machine. This letter replies to inquiries made by us*—Ed.

Quality Cherries Discolor When Soaked in Cold Water

Montmorency cherries from 4 orchards, having been graded extra fancy, became whitish when soaked in water, and in the pitting process became very soft and turned brown. This change in the quality of the cherries took place within 2 to 3 hours.

To curb the softening, the cherries were treated with calcium chloride and alum. To inhibit browning, they were treated with ascorbic acid. It was also thought that the malady could be the result of microbial growth, therefore, the cherries were treated with D.H.A-S and potassium sorbate. No beneficial effects of these chemicals, singularly as well as cumulative, were evidenced.

Some of us think the changes could be due to the high temperature (over 100° F) just prior to harvest which may have cooked the fruit on the trees.

D. K. SALUNKHE

Associate professor of horticulture, Utah State University, Logan, Utah.

● *If you have any ideas about this malady, or have had some experience with it, please write directly to Dr. Salunkhe*—Ed.

Correction Please!

Your article on the H. L. Hunt Parade Products Co. that appeared in the September issue of Canner/Packer credits the "Electro-Portioner" dispenser for chicken broth as having been made by ECO Engineering Co., Newark, N. J.

We are the manufacturers of the "Electro-Portioner" and not ECO Engineering Co., although we do use their pumps on some models. The dispenser is a patented device and the trade-mark is registered.

R. M. LOGEMAN

President, C. W. Logeman Co., 633 Bergen St., Brooklyn 38, N. Y.

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5. Provide low-cost permanent records for cooking plants.

The cost of Cook-Chex protection is negligible... less than one cent for 75 cases of No. 300 cans.

SEND FOR FREE TEST SUPPLY TODAY

You'll receive a generous supply of Cook-Chex at no cost; send your name, title, and plant address to Dept. CP 9

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Apricots, asparagus, pears or peas...
whatever you package...

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Continental's research goes to work for you in the field and its modern laboratories seeking new and better means of canning.

helps you all the way!

2 When you pack!

On the scene Continental analyzes immediate and particular problems, and finds the solution that serves you best.

3 After you pack!

Continental serves you right into the marketplace. The Merchandiser Digest adds retail impetus to canned sales every month.

Continental provides a farm-to-kitchen service for food packers across the country. Field experts solve on-the-spot problems of individual growers and canners with scientific skill and imagination, tireless researchers explore and test new and improved methods of processing food, and the famed Continental Merchandiser Digest adds force to canned food selling by bringing important retail hints to over 100,000 supermarkets every month. This total service assures you of the finest container for the food you process, and whatever that food...Continental has the right package for you.

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Continental has the right *processed food* package for you!

CANNED VEGETABLES
Prevents pre-processing browning

FRUIT DRINKS
"Peps up" as an acidulant

BABY FOODS
Improves palatability

BREADED SHRIMP
Slows enzyme action;
reduces bacterial growth

FRUIT PIE FILLINGS
Increases fruit content;
improves flavor

CANNED SOUPS
Enhances flavor

CANNED FIGS
Reduces autoclave temperature; improves flavor and texture

MAYONNAISE
Extends shelf life

PRUNE JUICE
Accents flavor

VEGETABLE JUICE COCKTAIL
Adjusts acidity; improves flavor

What can lemon juice do for your product?

These are a few of the processed foods that *look* better, *taste* better and *sell* better, thanks to Exchange Concentrated Lemon Juice.

They range from ocean bottom seafood to treetop fruit.

Your product may be one that can be transformed from "good" to "superior" by the use of lemon juice as a flavor enhancer. Loss from spoilage or discoloration can often be cut—even eliminated—by using it in processing.

Exchange Lemon Juice can be a selling ingredient of distinction on your label at a cost of just pennies. Tell us what your product is. We'll tell you if and how lemon juice can improve it. Just use the coupon.

Sunkist Growers

Products Sales Dept., 720 E. Sunkist St.
Ontario, California

GENTLEMEN: *Our product is* _____

_____

_____. *How can lemon juice help?*

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Your Anchor Man brings you all the benefits of SPECIALIZATION in glass packaging

In short, this means uniform, high quality glass containers, closures and sealing machines . . . specialized technical service and prompt deliveries . . . all resulting in efficient, economical production and dependable protection for your products. For more details contact your Anchor Man or write Anchor Hocking Glass Corporation, Lancaster, Ohio.

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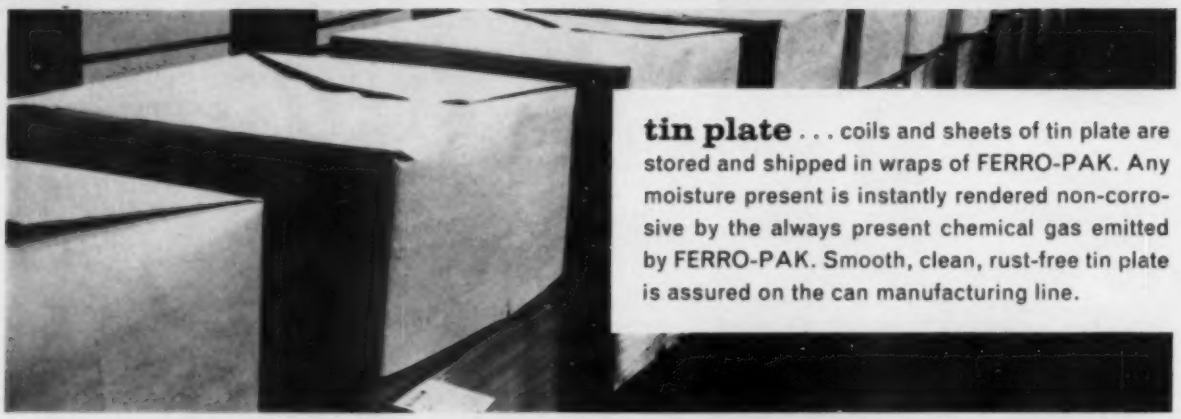
Sealing Machines—automatic and semi-automatic—vacuum and non-vacuum—speeds 30 to 1000 per minute

National Honey Week — October 24-29

rust stopper... Cromwell Ferro-Pak!

Every step of the way . . . in process, in storage, in shipment—in raw steel form—after tin plating—as finished cans—FERRO-PAK treated paper offers dependable protection against corrosion and rust.

raw steel . . . At the mill, raw steel is protected against condensation caused by temperature cycling. It goes to the tinning bath clean and rust-inhibited for better bonding, longer-lasting tin plate.



tin plate . . . coils and sheets of tin plate are stored and shipped in wraps of FERRO-PAK. Any moisture present is instantly rendered non-corrosive by the always present chemical gas emitted by FERRO-PAK. Smooth, clean, rust-free tin plate is assured on the can manufacturing line.

finished cans . . . cans arrive at the packers in top-quality condition safeguarded in CROMWELL FERRO-PAK Can Bags—stay clean and free of rust even after bags are opened.

Every step of the way raw steel, tin plate, finished cans are fully protected with CROMWELL FERRO-PAK

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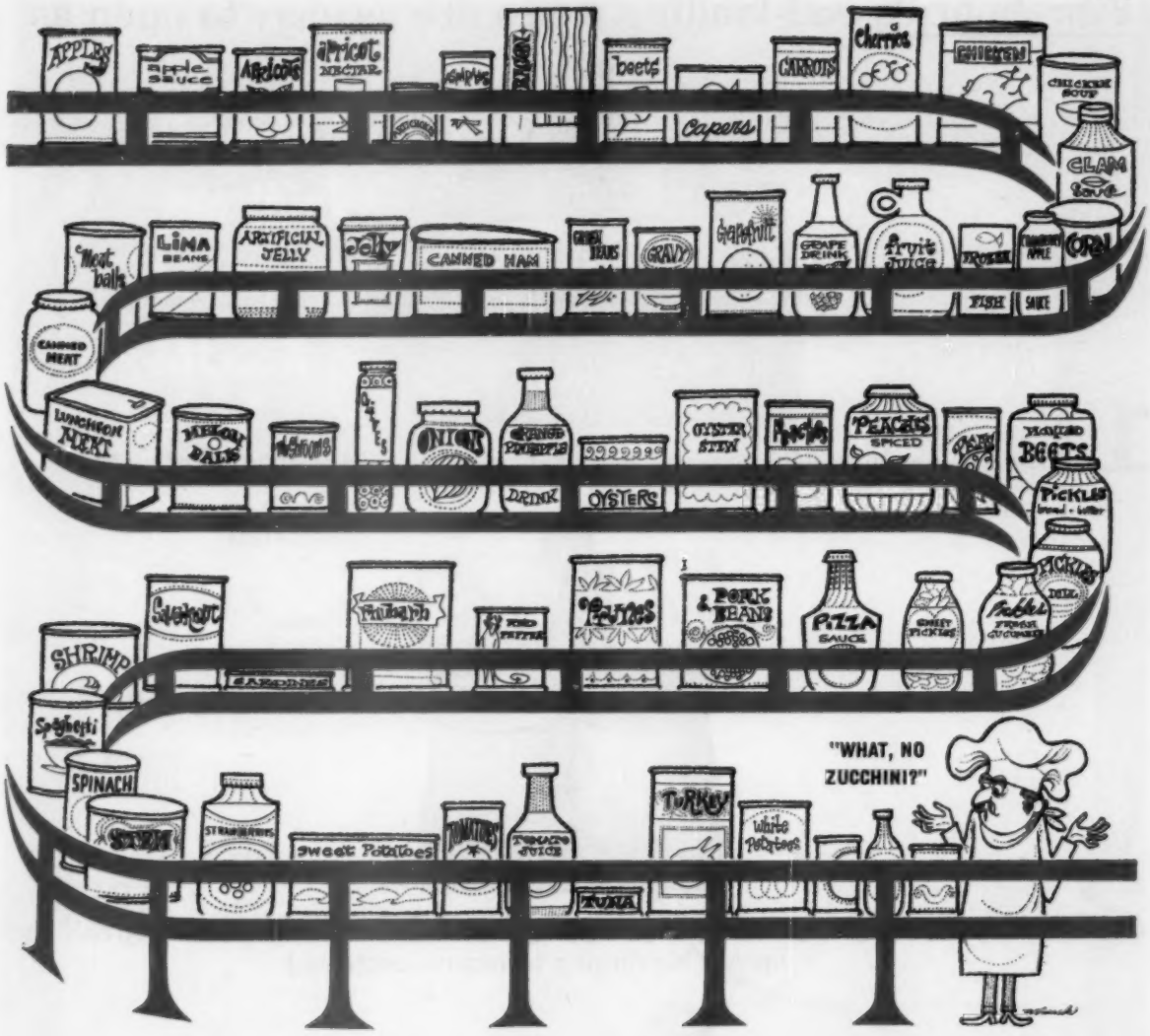
Manufacturers of: Papers (Impregnated • Coated • Laminated Reinforced • Flexible) • Bags • Sacks • Liners • Covers (Single and multiwall construction, using all types of material to carry, cover or protect all types of products.)



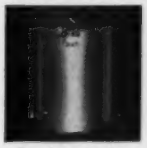
NEW MORTON FLOCRON DISPENSER CUTS CANNING COSTS FOR 63 PRODUCTS!

No splash . . . no spill . . . no overfill! Companies who use Morton's amazing Flocron liquid dispenser system to handle any of the 63 different food products listed above report that Flocron avoids the waste inherent in "overflow fill" systems, stops splash loss, and dispenses more than 40 different ingredients with money-saving speed and accuracy.

The versatile Flocron is actually a precise electronic system with photoelectric circuits in a sealed unit and a new lever-type photo switch to activate dispensing. It assures accuracy, even on lines handling up to 300 units per minute! Remote electronic controls permit you to "dial" the exact amount of liquid required for varying can sizes.

Designed for efficient, low cost operation. The Flocron is made of stainless steel and plastic and is constructed to avoid corrosion and lengthy breakdowns that result in costly downtime. There are no valves to stick or clog, and the Flocron is easily cleaned by circulating a detergent solution through the fluid system and following this with a sanitizer. No need to revise production lines. The Flocron can be operated with existing equipment. Scientific Dispensing Company technicians in all areas will assist with installation and servicing.

Some of the liquids you can dispense with the Flocron are: ascorbic acid, beef gravy, brine, concentrated syrup, hot butter, Monosodium Glutamate, spice oils, sugar and brine, tomato puree and vinegar.



MORTON ALSO OFFERS CORROSION-FREE BRINEMAKERS

In addition to the Flocron liquid dispenser, Morton also offers a complete range of Brinemakers, capable of producing up to 800 gals. of saturated pure brine per hour. With the Morton Brinemaker, salt is handled only once at the Brinemaker location from where it may flow or be pumped to the Flocron or other usage points. No space-wasting storage tank needed; no need for costly shut downs for cleaning out impurities.

SCIENTIFIC DISPENSING COMPANY / DIVISION OF

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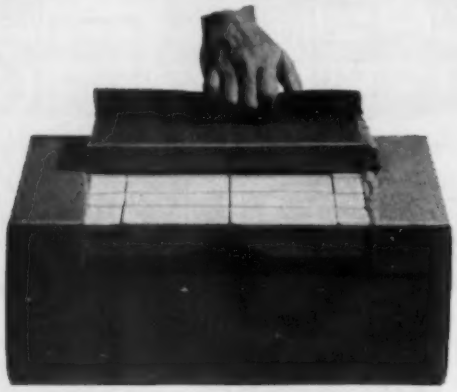
Fibreboard's end-loading cases are as easy to open as

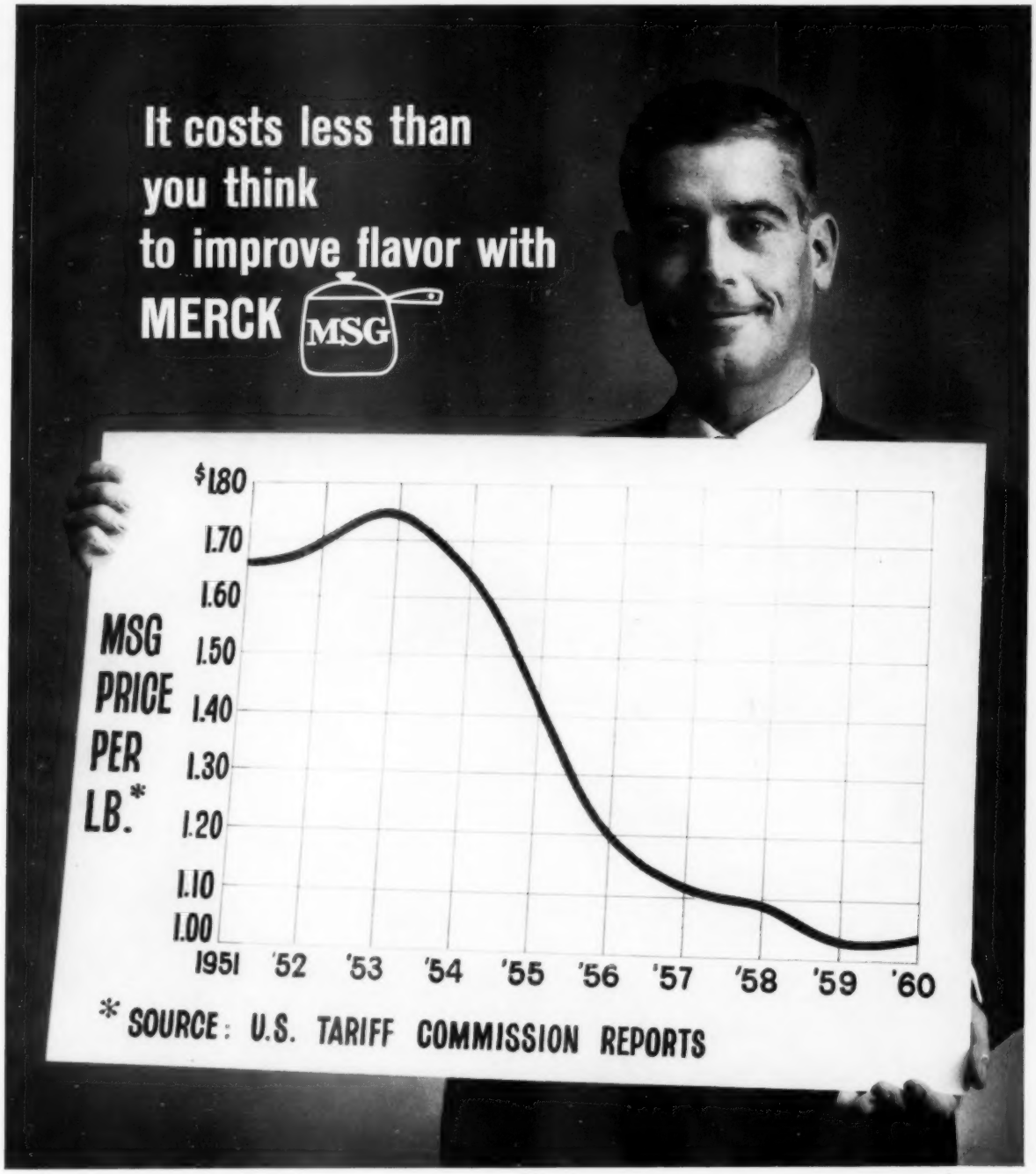


1 **Fibre Zip,** the glue-joint shipping case that opens quickly at the pull of a tab.

2 **M.T. Quik,** the glue-joint, flip-top shipping case. Pull the flap; the whole top half flips open. (No digging to remove contents.)

3 **Zip Ease,** the tape-joint shipping case. Pop the end flaps; the top zips open with a special tear-tape. (Closes neatly for storing, too.)

A Fibreboard specialist in *your* industry can help you get increased convenience with end-loading cases. (Plus maximum cost advantages, too.) How? To get information is as easy as writing: **Fibreboard Paper Products Corporation,** 475 Brannan Street, San Francisco 19.



Has the cost of using MSG stopped you from improving the flavor of your products? Better take a new look at MSG economics as shown in our graph. While most food processing costs have sharply increased during the past decade, MSG has steadily decreased and leveled off.

At today's prices, your product can benefit from the addition of Merck MSG for only 1-2 mils per pound of finished product—little enough compared to the decade's high when MSG cost nearly twice as much.

When you decide to re-evaluate MSG for your product be sure to call Merck. Specialists in the Merck Food Laboratories are ready and eager to help you get the most from MSG. And a recent 100% increase in production capacity puts Merck in an excellent position to meet all your MSG requirements.

MERCK CHEMICAL DIVISION
MERCK & CO., INC. • RAHWAY, NEW JERSEY

The Perfect Container doesn't Just Happen!

QUITE a jump from bug to butterfly! But Mother Nature designed the cocoon to do the job perfectly. Another container that does what it's supposed to do . . . best!

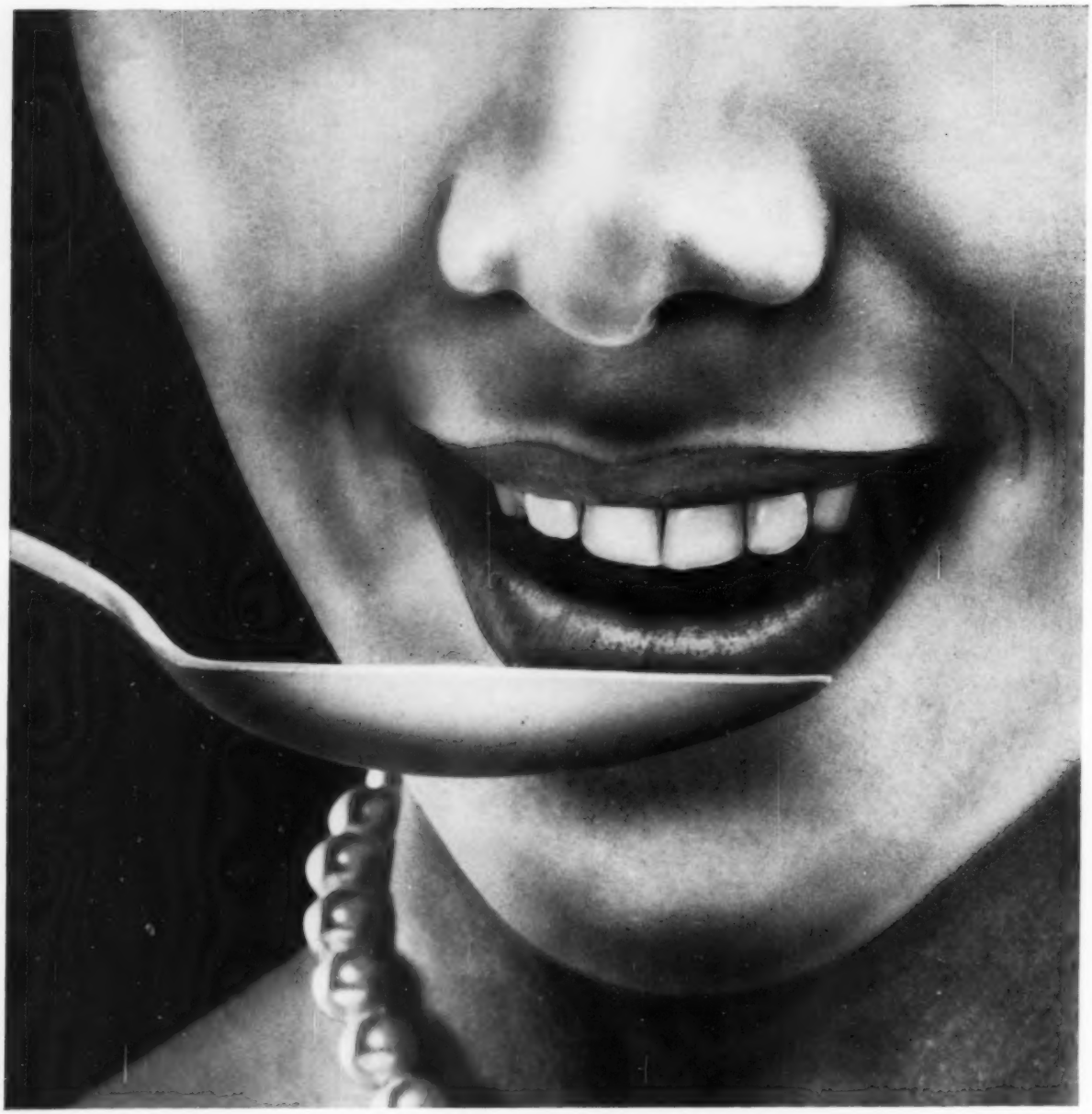
In the food field, Canco containers do what they are supposed to do . . . best! Behind every Canco success story are the experts who made it possible—Canco's aggressive team of research, manufacturing and marketing experts . . . the most experienced group in the container industry. Their knowledge of food processing and consumer needs has resulted in the leading packages of today and assures you that the great containers to come will come from Canco.

To help boost your profits, put the Canco team to work on your packaging problems.

GREAT CONTAINER IDEAS COME FROM CANCO

CANCO DIVISION

AMERICAN CAN COMPANY



IMPROVE FLAVOR AT RETORT TEMPERATURES WITH STABILIZED HVP-PROZATE

If you process meats, soups or other canned goods that are subjected to high retort temperatures, look to HVP-Prozate for heat-stable flavor.

Prozate® is a hydrolyzed vegetable protein flavoring agent that has been specially stabilized to withstand high temperatures. It is derived from plant protein and imparts either a rich, meaty flavor or a pleasant background flavor, depending on concentration. Prozate is easy to use, can be quickly incorporated into your present formula, and a little goes a long way.

In addition to HVP-Prozate, Hercules offers a full line of other HVP® products tailored to meet the specialized needs of the food industry. For details about Prozate and a sample of it—or for technical help—write to Hercules.

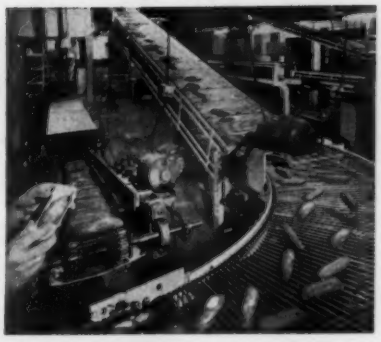
HERCULES POWDER COMPANY
INCORPORATED

CH61-2

Cellulose & Protein Products Department • Hercules Tower, 910 Market Street, Wilmington 99, Delaware

"WE HAVEN'T SPENT A DIME ON CYCLONE BELTS SINCE WE PUT THE FIRST ONES IN 8 YEARS AGO. I'D SAY WE GOT OURSELVES A BARGAIN."

That's what Francis Porambo, president of Franchett's Krullers, Inc., Elizabeth, N.J., had to say about his USS Cyclone metal conveyor belts. Franchett's three automatic cruller machines each turn out about 600 dozen crullers per hour, 14,400 dozen in the usual 8-hour day. Mr. Porambo says, "With our three machines, we've got just enough capacity to keep up with peak orders. The belts are the heart of the frying equipment; if they go we're in trouble. They've got to be rugged and well-engineered to keep working, sometimes 20 hours at a stretch. Cyclone has done such an outstanding job for us, there's no question about who will get first consideration the next time we need belts for any new equipment."



Here's a look at part of Franchett's 1000 feet of USS Cyclone conveyor belts. At left, you see crullers emerging from the fryer on a 9-gauge, tin-coated Flex-Grid belt. Size: 6"-wide by 12'-long. This belt is fed by an 8"-wide by 35'-long Equalized Spiral woven wire belt—18-gauge, Type 302 Stainless Steel. The Equalized Spiral is fed, in turn, by a 6"-wide by 7'11"-long Dual Weave belt—20-gauge, Type 302 Stainless Steel.

As the crullers reach the end of the 6"-wide Flex-Grid, they're automatically transferred to a 24" tin-coated Flex-Grid belt (right foreground) which takes them about 900' to the cooler. The cooler feeds the sugaring machine and then on to packaging. Trip time for a cruller: 40 minutes.

Next time you need a metal conveyor belt recommendation, give us a call. USS Cyclone makes more kinds of metal conveyor belts than anyone else in the world. Our service is the fastest in the industry. We've got 69 branch offices around the country to serve you. Wherever you are, we're reasonably close by. Check your Yellow Pages under "Conveyor Belts—Metal."

For strength, service, dependability.

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A Ball exclusive—a new all-purpose glass container coating which provides superior surface protection. F & DA-approved.
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Complete packaging counsel and design service

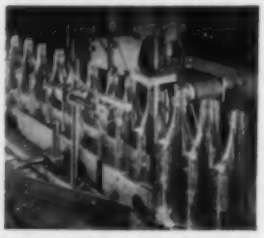
Experienced technical assistance on your processing and materials handling problems

Cartons designed to insure safe delivery of your product

8 good reasons why you should call Ball first

Marketing research assistance to help you determine if your packages are influencing sales at the shoppers moment of decision

Single line inspection and automatic throat gauging to assure dependable performance on your filling line



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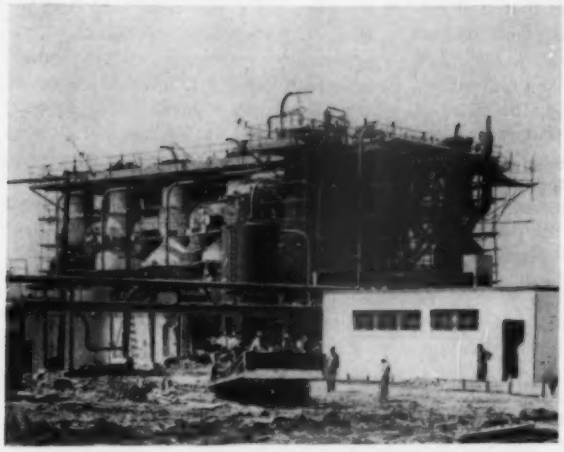
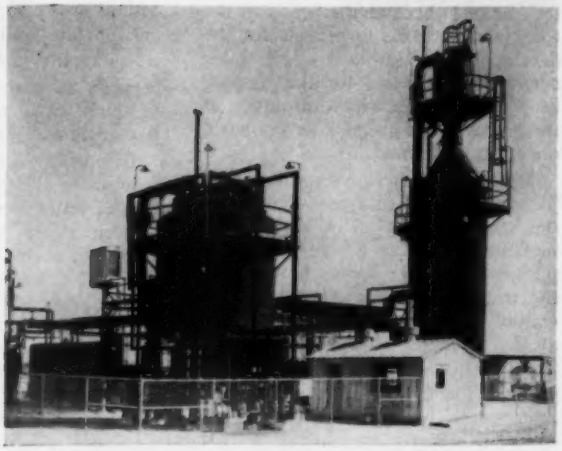
YOUR PARTNER IN PACKAGING PROGRESS



SALINE WATER PLANT at Freeport, Tex., (shown here under construction) utilizes a newly developed distillation conversion process, to produce 1 million gallons a day.



PILOT PLANT near St. Petersburg, Fla., testing a freezing process developed at Cornell University. The plant was built under research and development contract.

Fresh Water Is Made From Salt Water

By CHARLES F. MACGOWAN
Director, Office of Saline Water, U.S. Dept. of Interior

Water—not just plain ordinary water, but good quality water—a necessary requirement of most canner-packer operations, is becoming an increasingly difficult commodity to obtain in many areas of the United States. To provide sufficient clear, pure, fresh water to meet the increasing industrial and municipal demands may well be one of the most serious political, economic, and social problems of the coming decades. It has been predicted, in fact, that within 20 years, the provision of adequate supplies of fresh water may be our No. 1 domestic problem.

The facts bear out the accuracy of this conclusion.

Water problems in one form or another touch all 50 States of the Union. In some areas it is a problem of availability, in others of salinity or pollution; it may be a problem of maldistribution, or in some cases a problem of excess. Whatever the cause, as a Nation, we can no longer regard with indifference the increasing imbalance between the supply and demand for water in the United States.

The increase in the demand for fresh water has been phenomenal. At the turn of the century the citizens of this country required about 530 gallons of water per person per day for all purposes, making a total daily national use of about 40 billion gallons. Water uses have vastly changed since the turn of the century. Our industrial complex requires billions of gallons of water to slake its Gargantuan thirst. Irrigation demands are constantly increasing, and new devices such as washing machines, dishwashers, indoor plumbing, air conditioners and home swimming pools have raised our daily per capita use to 1500 gallons. Our population has now passed the 182 million mark bringing our total daily use of water to an estimated 300 billion gallons per day.

Water Needs Growing

The ascending rate of demand is causing increasingly severe water problems in many sections of the country. In 1957, a study conducted by the U. S. Geological Survey revealed that in over 1,000 cities and communities, representing one-seventh of the Nation's entire population, water shortages of varying degrees required their citizens to endure restricted use of water. If our present rate of demand can cause a problem of such magnitude in a year of moderate drought, what then will be the scope of the problems we may have to face in just 20 years when, according to the U. S. Geological Survey, our demand for water will more than double, reaching the immense total of 597 billion gallons per day! This is an ominous number in view of the fact that the readily available fresh water supplies of the U. S. are estimated at 515 billion gallons per day.

In spite of the evident limitations of water supply, we continue to be terribly careless with our water resources. In this regard man is his own worst enemy. Rivers that once ran clear and sweet are now turbid and malodorous with silt and sewage. Over 100 petrochemical compounds have been identified as water pollutants—detergents, insecticides, herbicides, and solvents. They are a part of the progress of civilization. These new contaminants are difficult to spot and more difficult to control. Present methods of treating polluted water have just about been exhausted and water engineers have been unable to properly handle these chemicals.

All over the Nation thoughtful and prudent people are coming to the sober realization that in the years ahead we will have to meet and solve many problems related to the provisions of adequate supplies of fresh water. Recognizing the acute shortage of water in the arid areas of the Na-

tion and elsewhere and the excessive use of underground waters throughout the Nation it became the policy of the Congress, in 1952, to provide for the development of low-cost saline water conversion processes for the purpose of increasing the water resources of the Nation. This placed a new concept on an age-old quest.

Man has been trying for a long time to brew a drink of fresh water from the sea, probably a lot longer than most people realize. For centuries people generally have known how to turn the trick: Distillation: the basic concept of the art which is probably as old as the teakettle.

Necessity being the mother of invention, the first practical conversion units came with the advent of the steamship and its requirement of fresh water for boilers. Today, most of the large ocean-going vessels have their battery of evaporators. The new Ranger Class carriers of the United States Navy, for example, have four 70-thousand gallons per day evaporators to supply the water needs of those huge ships and their large crews.

Costs of Conversion High

While shipboard supplies of water are vital to navies and the maritime industry, the problem in which the Office of Saline Water is interested is quite different. Aboard ship, where the primary interest is a reliable supply of water, the cost of the water is of secondary consideration. OSW interest is diametrically opposite, being centered on land-based plants that can produce fresh water from the sea at low-cost—with the emphasis on cost.

At the time this program got underway, the cost of converting sea water to fresh ranged upward from $5 per 1,000 gallons. Today there is a plant on the Island of Aruba, in the Caribbean, that is producing 2.8 million gallons of fresh water per day at a cost of about $1.75 per thousand gallons. Of the land-based plants scattered about the globe, with a combined capacity of about 20 million gallons of fresh water per day, the plant at Aruba seems the most efficient.

Based on our cost standards, water from these plants is expensive, but the cost of water from alternative sources is even higher. Over the past several years, for example, the Department of the Interior has brought over 100 million gallons of fresh water from Puerto Rico to supply the minimum requirements of the people of St. Thomas, Virgin Islands, in barges at a cost of about $5 per thousand gallons. Just over a year ago the citizens of Coalinga, California, purchased a 26,000 gallons per day demineralization unit to convert their brackish well water into potable supplies. This water is costing them $1.45 per thousand gallons. Expensive? Not really, since it eliminated the need of importing fresh water by tank car at a cost of $9.35 per thousand gallons.

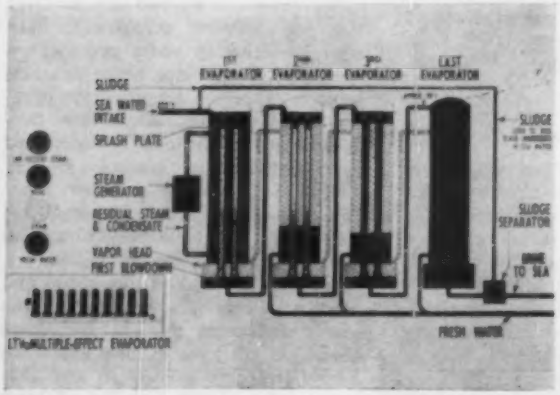
The Office of Saline Water is a rather unique Government agency. All of the research work is conducted by contract with universities, private research organizations, and industrial firms. Using this technique, the Office has operated with a small 14 man staff of engineers to coordinate and correlate contract work that has effectively utilized some of the finest scientists in the Nation to solve the difficult technological problems involved in the development of new or improved processes.

The development of saline water conversion processes has advanced in a number of broad fields, each of which incorporates a number of different processes. These fields can be conveniently listed as follows: (1) distillation using fossil (or possibly nuclear) fuels; (2) solar heat distillation; (3) membrane processes; (4) separation by freezing; and (5) other chemical, electrical, physical or other conversion methods, including solvent extraction and use of gas hydrates.

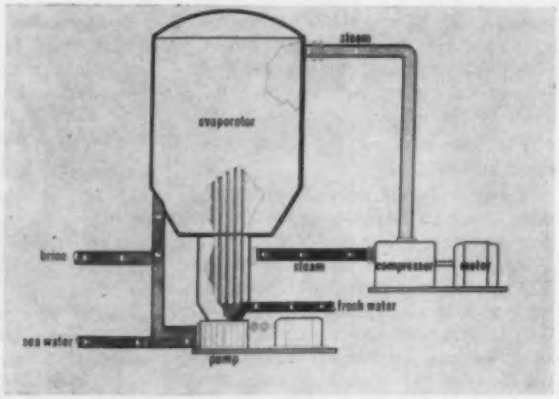
No one saline water conversion process is expected to be the complete answer for all uses. Different types of processes are advantageous for either of the two major divisions—sea water and brackish waters. In addition, other factors such as local fuel and power costs, production capacity of the plant, and waste disposal conditions, can determine which of several processes would be the most econonical to use.

Five New Processes

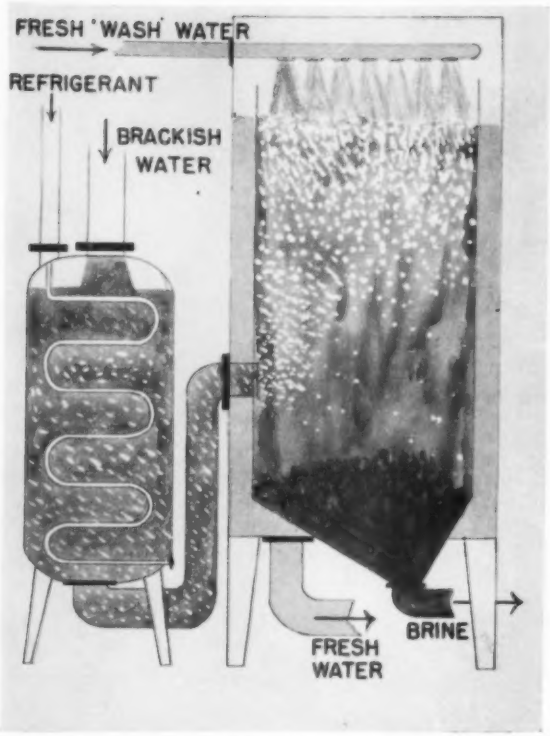
During the first six years of operation the Office of Saline Water was limited by its authorization to only carry out research and development activities. In 1958 the Congress added a new dimension to the program—construction. Public Law 85-883 authorized $10 million for the construction and operation of five plants to demonstrate the reliability, engineering, and economic potentials of the most promising of the presently known processes. The law requires that each plant shall utilize a different process and specifies the following general provisions: (a) Three of the plants shall be for the conversion of sea water to fresh and at least two of these plants shall have a capacity of not less than one million gallons per day. (b) Two of the plants shall be for the treatment of brackish water, and at least one of the plants so designed shall have a capacity of not less than two hundred and fifty thousand gallons per day. (c) One sea water con-



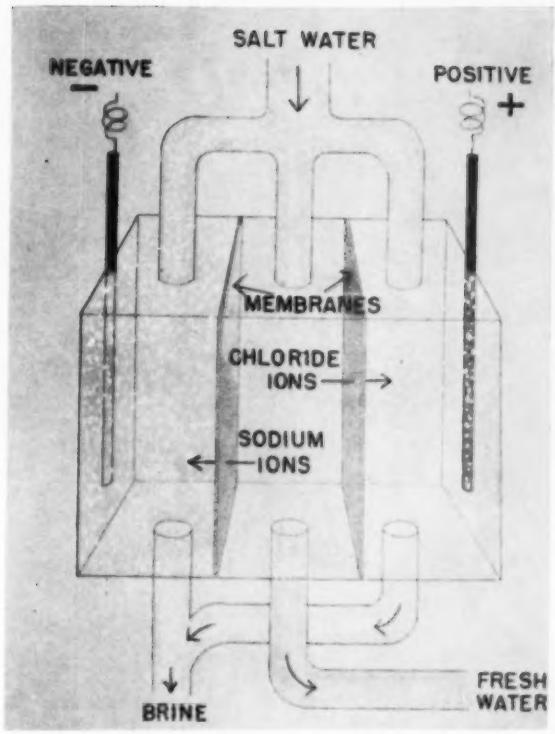
SCHEMATIC DIAGRAM of the new process used in the Freeport, Tex., plant shows the details of what is called "long tube vertical multiple effect distillation."



ROSWELL, N.M. PLANT is testing a saline water conversion system called, "forced circulation, vapor-compression distillation," shown here in a schematic diagram.



FREEZING PROCESS PLANT will produce 15,000 gallons per day on a pilot basis. Diagram shows the principle of St. Petersburg plant.



PRINCIPLE OF ELECTRODIALYSIS will be tested at a 250,000 gallons per day plant at Webster, S.D. Schematic diagram shows flow.

version plant shall be located on the east coast, one on the west coast, and one on the Gulf Coast. (d) One of the brackish water plants shall be located in the area generally described as the Northern Great Plains and the other in the arid areas of the Southwest.

Five processes and five sites have been selected. They are: Long-tube vertical multiple effect distillation, Freeport, Texas; Multistage flash distillation, San Diego, California; Electrodialysis, Webster, South Dakota; Forced-circulation vapor-compression, Roswell, New Mexico; and Freezing, Wrightsville Beach, North Carolina.

A $1,246,250 contract for the construction of the 1,000,000 gallons per day at the Freeport plant was awarded to the Chicago Bridge and Iron Company on June 8, 1960. Designed by W. L. Badger Associates of Ann Arbor, Michigan, under auspices of OSW, the plant is expected to produce fresh water from the ocean at the anticipated price of $1 per 1,000 gallons. Studies indicate that this process will not reach its maximum of economic efficiency until it is incorporated in plants of 15-20 million gallons per day capacity. In plants of that size a cost of 50c-75c per 1,000 gallons appears possible. The construction of the Freeport plant is complete, and went into full production about July 1.

The San Diego plant was designed by the Fluor Corporation of Los Angeles, California, to produce fresh water from the ocean at the rate of 1 million gallons per day. A $1,608,000 construction contract was awarded on November 5, 1960, to the Westinghouse Electric Corporation. The plant is scheduled to be completed by the end of the year. Studies of the potential of this process by the Fluor Corporation indicate that a cost of conversion as low as 45c-65c per thousand gallons might be attained in plants designed to optimize at about 50 million gallons of fresh water per day.

Promise Lower Costs

Electrodialysis uses a combination of thin membranes and an electric current to remove the dissolved salt from the water. This process will be utilized in a 250,000 gallons per day plant at Webster, South Dakota, which was designed by the Bureau of Reclamation Laboratories, Denver, Colorado. On November 16, 1960, a $482,200 construction contract was awarded to the Asahi Chemical Industry Company. This plant should also be completed and in operation by the end of this year.

A contract for the architect-engineering work for a 1-million gallons per day plant at Roswell, New Mexico, has been awarded to the Catalytic Construction Company of Philadelphia, Pennsylvania. A construction bid was awarded early this Fall. Negotiations are underway to select an architect-engineer to prepare performance specifications for the east coast plant. The award of a construction contract is scheduled for early in 1962.

We expect to obtain a great deal of information from the construction and operation of these five plants, information that will be of practical and beneficial use to many areas of the world. Continued progress toward lower cost conversion will make converted sea or brackish water an economically competitive source of supplemental water for municipal and industrial uses in areas of acute supply.

The demonstration plants will be the vanguard of many conversion plants both here and abroad. While these plants are being constructed the research and development program is being accelerated for the development of new or improved processes. With an abiding faith in the ability of the American scientific community, OSW looks forward with confident assurance that the ancient dreams of man—fresh water from the salty sea—can become an economic reality in our time.

FEAST DAYS ARE PICKLE DAYS

. . . and good packaging helps make them so!

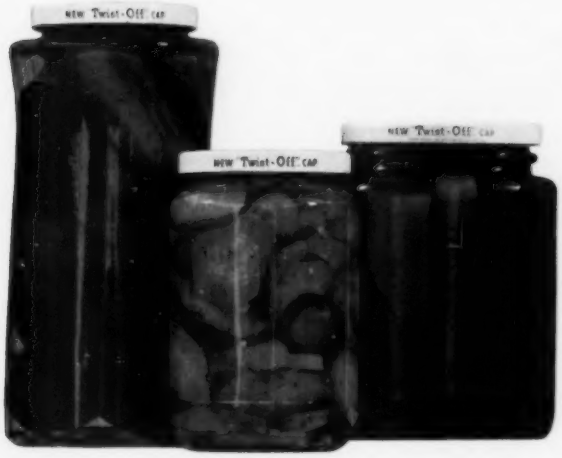
This year, the Thanksgiving, Christmas, and New Year's dinner tables are going to see pickles used more prominently than ever.

That timely theme, "*Holidays are Pickle Days!*", is now in its sixth year of successful promotion, with the nation's pickle packers spreading the word in every possible way. The nation's retailers, having learned the great holiday sales potential of pickles, are falling in line—and cashing in—in increasing numbers.

• • •

In all this growing activity, modern pickle packaging is playing a strong part. Clean, impulse-building packages, *made more convenient than ever by their modern ¼-turn "Twist-Off" Caps,* are helping mightily to stimulate the buying urge. And shoppers buy with complete confidence, because they know that these Vapor-Vacuum Seals protect the original flavor and freshness of any pickle product.

May we suggest, once more, that no Holiday feast is complete without pickles—and that no pickle package is at its best without a Vapor-Vacuum ¼-turn "Twist-Off" Cap.



WHITE CAP COMPANY

DIVISION OF CONTINENTAL © CAN COMPANY

10-61

How Musselman Labels Cans and Jars, Seals Fiber Cases with Speed and Efficiency

By JOHN W. FREDERICK
Warehouse Foreman, C. H. Musselman Co., Biglerville, Pa.

Today's self-service merchandising methods place great demands upon canned and glassed food labels. Dog-eared cans, and labels which are stained or oil-splotched, are passed right by by the housewife. They sit forlornly on the shelf until the grocer relegates them to the back room, where they will remind him not to stock that brand again.

At the same time, modern high-speed mechanized operations can make it difficult to guarantee labeling performance that is 100%. Adhesives are called on to work successfully with labelers that run at speeds of hundreds of units per minute. They are expected to perform equally well with chilled merchandise out of the warehouse and with hot goods directly off the line. And they must make both wrap-around and spot labels adhere to both tin and glass containers.

Finally, practices in case sealing have changed materially in recent years, with the demand for easy-opening cases, with end-loading units, with fibreboard which is more heavily-sized and starched to stand up under high stacking and rough handling.

Five Types Do the Job

At the Musselman plants, we have devoted much attention to selection of adhesives which will handle all of these operations adequately, which will help us maintain our equipment at its most efficient point, and which will add up to the lowest cost per applied label. I stress that last, because a relatively expensive glue may give low cost per unit, because of superior performance features.

As a result of our tests, we have standardized on five adhesives, which we obtain from two suppliers. These products, and their functions, are as follows:

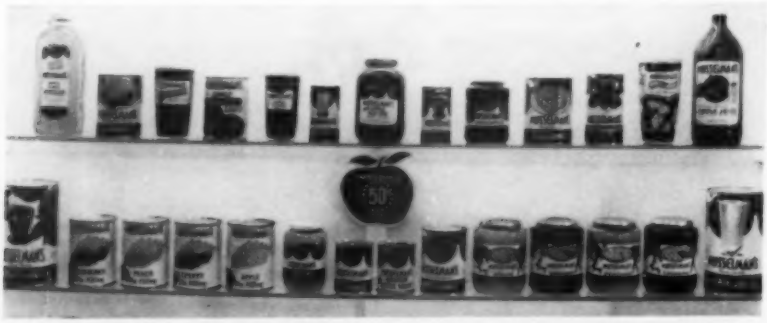
(1) Wrap-around label pick-up, for applying labels to Nos. 2 and 2½ cans.

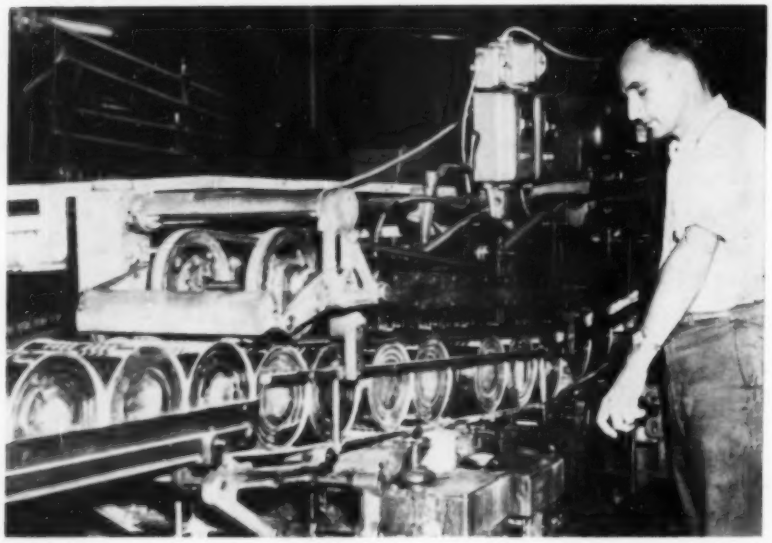
(2) Lap paste, for completing the application of labels to retail-size cans.

(3) Pick-up gum, for the complete application of spot labels to No. 10 cans.

(4) Pick-up gum, for the complete application of spot labels to glass-packed apple butter, jellies and pie fillings.

(5) Flap adhesive, for sealing tops and bottoms of fibre shipping cases.





MUSSELMAN FOODS like those shown above pose three tests of the efficiency of modern adhesives. One is in labeling cans, as shown in the lower view on this page.

Wrap-arounds for Cans

Musselman products are sold and shipped the year around, and thus we label room-temperature or colder cans from our warehouses, and products direct from the processing lines. All roll through our labelers at speeds up to 325 per minute, and yet both are labeled with the same type of pickup glue, but in two different grades.

This is a resin hot-melt product, designed to give maximum bond between can and label, and to have fast-setting qualities. Until a few years ago, this would have been a brown-colored product, and it would have been difficult to avoid staining the labels occasionally. Today white adhesives of this type are available, glues which do not show through the lightest-weight paper labels.

For cans out of the warehouse, to avoid slippage and irregular application, we use a resin which permits application of a fairly heavy spot, thus retarding the set-up time and permitting a firm hold on the label. With the hot cans directly from the lines—which are always cooled to at least 90° F.—the adhesive is of a type which can be

applied warmer, and with a lighter pick-up from the roller applicators, so as to provide for a relatively quick set-up on the warm tins.

Applying Lap Paste

We insist on good-quality labels, and therefore have had satisfactory results from a starch-based adhesive as a lap-paste for our consumer-size cans.

To use this type of material successfully, it is important that there be no excessive temperature variations, that there not be excessive water in the formula, and that there not be too heavy an application of the paste. Lack of attention to these points, or use of an inferior type of label, will result in wrinkling, and sometimes in failure of the label to adhere to the can at all.

With proper care, the label sometimes still wrinkles somewhat within two to five minutes after application, but in the eventual dry-out the backside or plain paper stock contracts and smooths out the varnished front side.

Spot Labeling of No. 10s

No. 10 cans are labeled per mechanical equipment which applies spot labels at an average speed of per minute. For this purpose, we use a hot spot pick-up gum, which we apply at a temperature controlled thermostatically at approximately 250° F.

A relatively tight temperature control is essential. If the temperature drops too low, the adhesive will form strings and get all over the equipment, and eventually dirty the labels themselves. If the level rises too high, the glue will be too thin, and the label will slip from its correct position, leaving glue exposed and failing to suggest the quality we put into our No. 10 sliced apple packs.

In our gallon-can operations, we face a problem which is encountered quite universally—the fact that we almost never run consistently for an eight-hour shift. After one operation of the labeler, there is a temptation to leave the glue-pot at running temperature until another run is called for. Crystallization of the adhesive can readily occur from this practice, resulting in lost labels en route. We have learned to avoid these problems with over-heated and burned glue by scheduling our runs more periodically, and by turning off the heat between runs.

Spot Labeling Glass

Applying spot labels becomes a truly crucial operation with glass jars and tumblers. We maintain a separate line for glass labeling, with three labelers which receive containers as they issue from the cooler. From the labeling machine, the jars pass to a revolving receiving table, from which they are picked off manually to be trayed up for cooling, and eventually for casing. The hand method is used because an assortment of five different jelly flavors is packed.

To bond the spot labels to the jars we employ a dextrine-type adhesive, short-breaking and non-webbing. The heavy, jelly-like gum has tremendous tack and dries readily, yet makes the labelers easy to clean, and produces an attractive package.

Sealing the Cases

Cases are sealed—those for glass on the top only; those holding cans on both top and bottom—with mechanical equipment. In these days the tendency is to use shorter and shorter compression units, and yet to speed operations up from relatively slow speeds to up to 1,000 cases per hour. On top of this, cases have to be made to withstand the most rigorous treatment. All of these factors impose problems in gluing shipping containers.

Assignment of Personnel

We assign a competent mechanic to each labeling department, and make it his sole responsibility to maintain labeling and casing equipment. Also, we insist on a regular cleaning schedule of equipment and glue pots, which includes steam cleaning and the use of solvents.

Since our seasonal operations call for many more operators than during the off-season, we conduct an informal training program for future operators when warehouse activity is at a minimum. A trainee, slected from among year-round personnel, works under an experienced operator for a month or more before being assigned full responsibility as a mechanic.

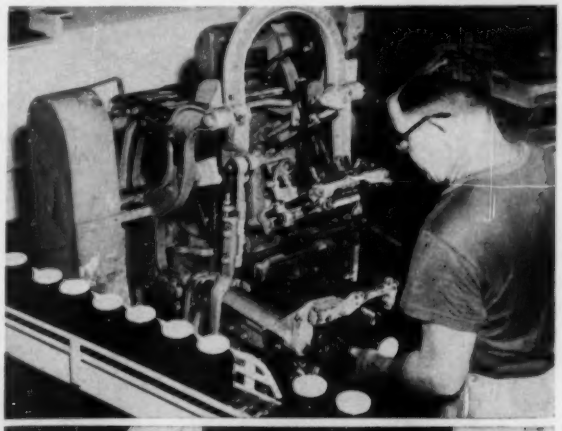
In summary, we believe that labeling and casing which reflect creditably on the manufacturer is dependent on a consistent program of maintenance, cleaning and personnel training.

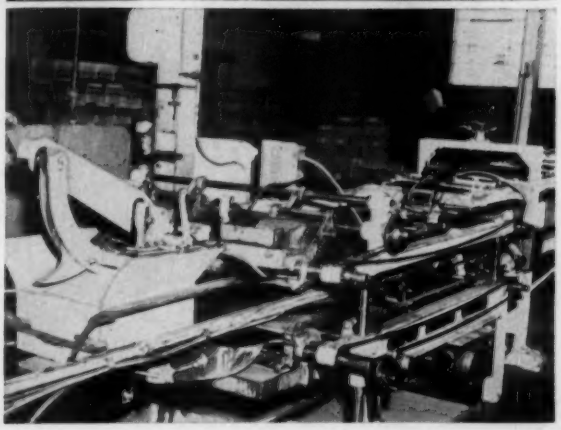
(The C. H. Musselman Co. became an operating division of the Pet Milk Co. of St. Louis, Mo., through an exchange of stock.—Editor.)

For More Information . . .

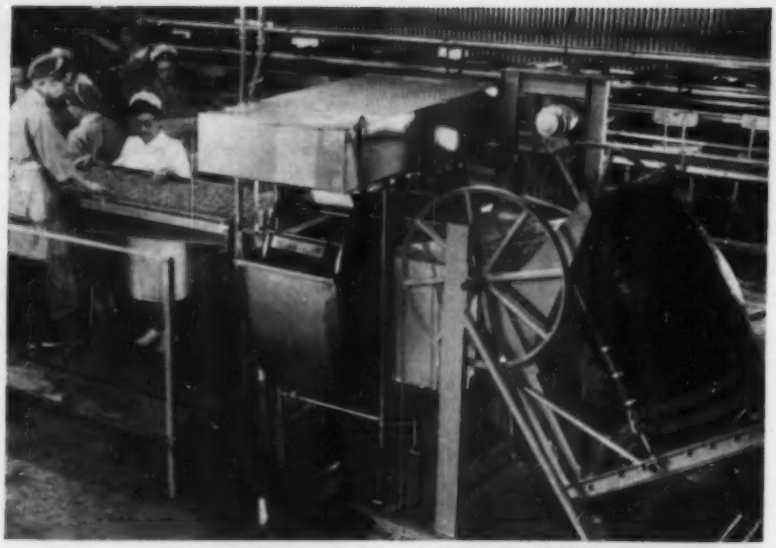
about products of some of the suppliers who are listed below, please write Canner/Packer, 59 East Monroe St., Chicago 3, Ill., giving your name and address.

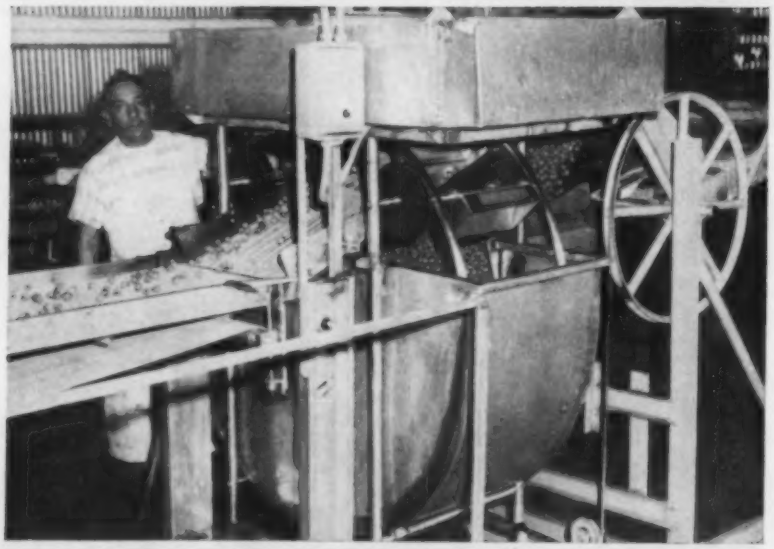
Adhesives . . Arabol Mfg. Co. . . . . National Starch & Chem. Corp.
Labels . . . . . Piedmont Label Co.
Jar labelers . . Edward Ermold Co.
Can labelers, Case-loaders . . . . . Chisholm-Ryder Co. of Pa.
Case gluers and sealers . . . . . J. L. Ferguson Co.





GLASSED FOODS also have to be labeled, as the operator is doing in the upper scene here. Finally, the loaded fibre shipping cases have to be sealed, as in the lower picture. Photographs are by Phil Lance.





Packing Olives

Glass operation is highly mechanized at California plant

Pacific Olive Co. has recently installed a complete new tumble-pack green olive line which handles every step from barrel to labeling mechanically, except for the essential visual inspection of the product.

The operation not only provides a degree of automation well beyond what the Visalia, Calif., plant has had in the past, but also—because of the design of the equipment, and the stainless steel of which it is made—has materially improved quality and reduced sanitation problems.

The accompanying photographs illustrate the major steps in the new glass-packing procedure.

Dumping and Inspection

(1) Brined olives are delivered to the head of the line in barrels, by means of fork-lift trucks. Each barrel is slid on to a platform composed of rollers, over which the base of the container readily moves. An upper lip fits over the top of the barrel, to hold it in the desired position. A mechanical lifting device then raises and tilts the barrel, discharging its contents into a cylinder-shaped stainless steel hopper. See top picture on this page.

(2) This hopper serves a dual purpose. Its base provides a drainage system, through which the brine in which the fruit has been packed is drawn off. And a ferris-wheel device, consisting of a series of rectangular hoppers mounted between two large rings rolling over pulleys, picks up the olives and allows them to cascade down over a vibrating feeder which discharges on to an inspection belt. The second picture on this page shows a close-up of the hopper.

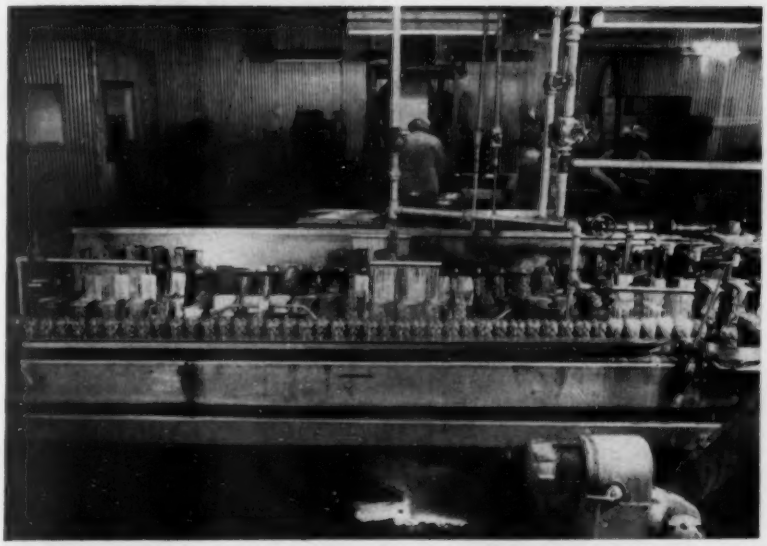
Filling the Jars

(3) In the bottom photo on this page, the fruit has passed over the inspection table and is moving into a stainless steel filler. The olives drop to the bottom of this cylindrical device, while the empty glass jars enter it on a cable conveyor, fed from a re-

the Modern Way

volving supply table on which the empties are discharged from their fibre shipping cases.

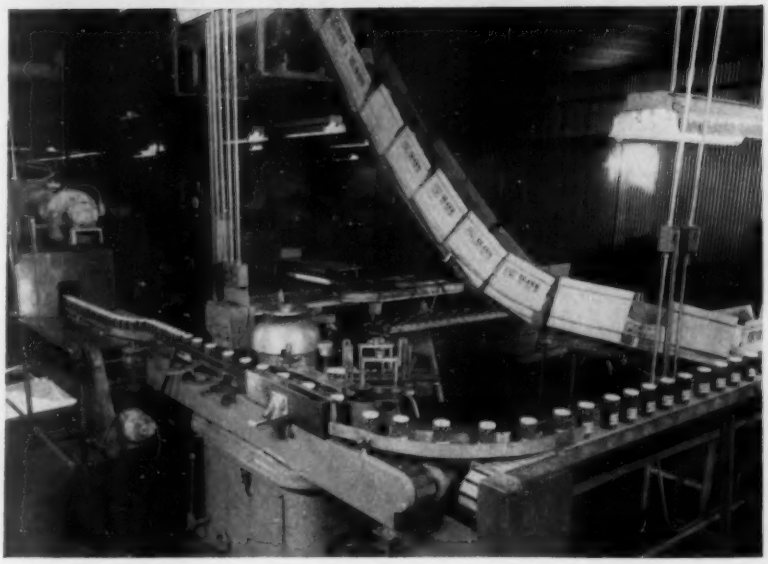
(4) The top picture on this page shows jars issuing from the filler and moving to a check-weighing station where an over-under scale is used to sample the pack. The filler shell rotates, and shelves inside it pick up the olives and tumble-pack them into the empties as the latter pass through. Note conveyor in the background, carrying off the empty cases to the repacking station.



Draining and Brining

(5) An extensive stainless steel installation (see middle view this page) adds an operation not always found in packing green olives. The jars of fruit are filled with water four times, after each fill are inverted and drained, and finally are brined with the packing medium. The entire operation is mechanized. It provides positive assurance of a clean pack, without fragments of olives or other unwanted material.

(6) Olives pass through a vapor-vacuum closing unit, and then through a washing tunnel (left background in lower photo on this page). The sealed containers are then conveyed through a labeler (center foreground) and on around the corner to the recasing station.

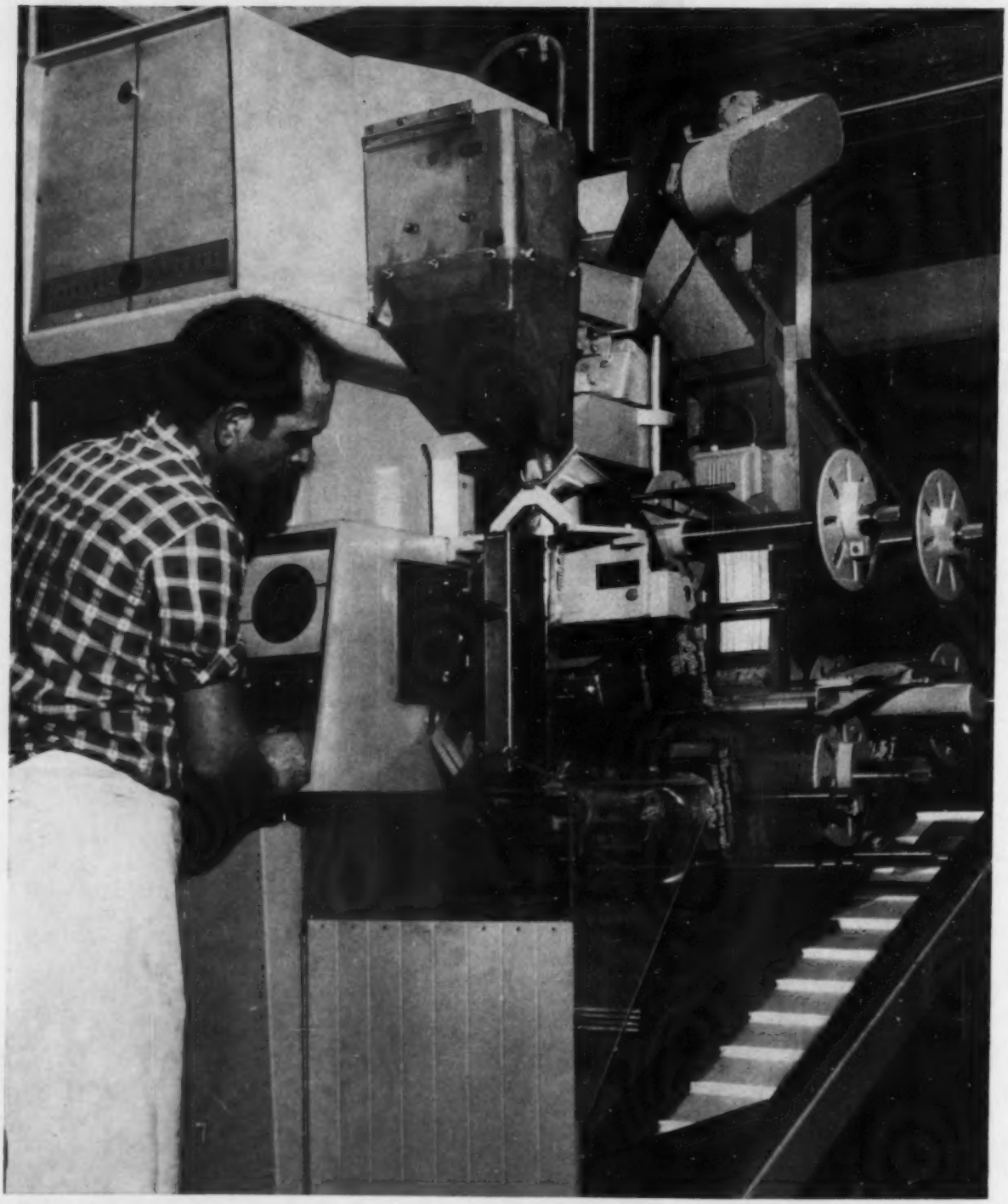


For More Information . . .

about products of some of the suppliers who are listed below, please write Canner/Packer, 59 East Monroe St., Chicago 3, Ill., giving your name and address.

Barrel-dumper and feeder . . Solbern Mfg. Co.
Drum-type filler . . Solbern Mfg. Co.
Over-under scale . . . Exact Weight Scale Co.
Filler-drainer-briner . . . . . Solbern Mfg. Co.
Closing machine . . White Cap Co.
Jar labeler . . New Jersey Mach. Co.

Oklahoma Firm Mechanizes Dry Food Packing



A SINGLE UNIT, this Bagmaster patented by Sperry-Rand Corp. of Durham, N. C., performs five different operations in the packing of coconut by Griffin Manufacturing Company in a floor area only nine feet long.

t with One New Machine

By Wilma Cole

"Those rumors about Griffin's having a new, secret machine that grows coconuts are slightly exaggerated," says Griffin Manufacturing Co. of Muskogee, Okla., "but only slightly . . ."

For this long-established firm (it celebrated its 50th anniversary in 1958) has recently installed a first-of-its-kind machine for packaging coconut which has increased this dry food pack's output by 200%.

Griffin buys its raw product by the 600-bag car, and processes a million pounds a year. Originally five different steps were involved in the packaging—making or supplying the transparent film bags, delivering coconut to the bagging station, weighing out the amount for each bag, filling the container and sealing it.

Now, in an area nine feet long, all of these operations are handled by a single machine—the Bagmaster illustrated on the opposite page. For good measure, the new installation delivers the bagged nutmeats to the shipping case area.

"We turn a dial and save a mile," says Alex Evans, manufacturing superintendent. "Formerly, it was necessary to buy ready-made bags and ship them in. Employees had to carry trayfuls of coconut to the packaging line. Now the machine does it all."

In operation, two 13-inch rolls of DuPont cellophane are fed simultaneously through threaded rollers. One is plain; the other is printed (by Package Engineers) with the Griffin brand—red for regular shredded and yellow for flaked. Thus each bag has a double thickness of the film to serve as moisture-vapor barrier. No down-time is needed to refill empty roll-holders; rolls are spliced without stopping.

As the bags are formed, coconut pours from the dryer onto a conveyor belt and is elevated to a bulk receiving bin. An electronic scale kicks it down to the hopper feeding the bagging station. There it is weighed and discharged into the bags, which are sealed at the rate of around 36 bags per minute. The finished pack is then received by a conveyor, and is carried off to the casing department.

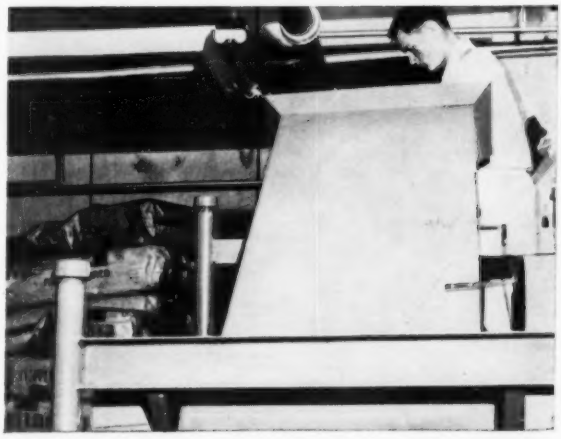
Every effort has been made to make the various steps automatic and foolproof. Registration of the preprinted film is controlled by an adjustable electric eye just ahead of the tube-former, using blue dots to guide the equipment. Weigher-to-bag chutes are fiberglas, and are changed with the size of the tube-formers. The bag is opened wide at the moment of filling by a regulated jet of air.

An electromagnetically-operated seam sealer seals vertically, by means of an even sealing pressure. This pressure is adjustable instantly, and sealing temperature is controlled by a thermostat. The front-end seal jaw is spring-loaded and self-aligning; the bag cut-off knife operates between the two rear-end seal jaws.

Various quantities are packaged on the single unit, flaked coming in 3½-, 7- and 14-oz. bags, and fancy in 4-, 8- and 16-oz. sizes. Tube-formers for the different sizes are quickly interchangeable. Coconut is packed under the company's brand, and for private label; bulk packs are also put up, ranging from 10 to 100 lbs.

Griffin Mfg. Co. packs nearly 100 food items and operates three plants. That at Muskogee processes coffee, tea, syrups, preserves and spices, in addition to coconut. At Stigler, Okla., fruits and vegetables are canned, while Dennison (Tex.) Peanut Co., packs peanuts and pecans.

COCONUT IS DELIVERED in cuts as long thread, fancy shred, pie shred flake, macaroon, in 100-lb. bags. Bags are slit open with the knife, and coconut is pushed into this Wright Machine Co. unit for loosening and separating prior to processing.



LOOSE STOCK from the separator is caught in movable bins, whose castored legs make it possible to push them to the left a few feet, next to mixing kettles.

REVOLVING DRUMS from Thos. Burkhard, Inc. mix the coconut with sugar syrup and glycerine. Holding 225 lbs. each, these kettles also heat the product to 180° F. Drying follows, in Proctor & Schwartz equipment, after which the meat is ready for packaging.

If you bottled beverages back in 1890, you had about ten different types of caps to choose from—ranging from cork and wood plugs to flat, circular valves. None of them worked too well. Then a man named Painter invented the crimped crown cap made from tin plate. He patented it in 1892, and it soon replaced every other type of closure in its field. It was easy to decorate, easy to apply, and it sealed in carbonation with the grip that only steel has. And it was inexpensive enough to be used once, then thrown away. Tin plate crown caps are still the only type on the market because nothing else can do the job as well; nothing else has the complete approval from manufacturers, beverage companies, and consumers. The beverage industry uses about 46½ billion of them a year—and they cost less today than when they were developed 70 years ago. The producers of tin plate and the manufacturers of crown caps have worked that long to develop better methods of production for a better product at less cost.

USS United States Steel

TRADEMARK

A major part of consumer acceptance of your product depends upon the package it comes in. And the package is only as good as the closure that seals it. That's why most closures are made from tin plate. Your package designers select it because tin plate can be made in the sizes and shapes to fit your container. Your production people recommend it because tin plate can be processed on high-speed machinery—to keep costs down. Your marketing people endorse it because tin plate can be easily decorated and marked with your brand. Consumers buy it because tin plate threads and lugs don't lose their grip—the container is easy to open and close hundreds of times. Tin plate is on top because it belongs there.

Frozen Banana Puree Is Success in Texas

Pan-Am Foods imports green fruit, ripens and packs it. Other U.S. manufacturers use the puree for wide variety of products

By Marion Rubinstein

The quantity of frozen banana puree produced each year by U.S. packers is buried in the Miscellaneous Fruits column of the annual report issued by National Assn. of Frozen Food Packers. However, it is believed to be an important part of the total, which in 1960 was made up of 30 items and totaled over 34 million processed pounds.

"We estimate that 24 million lbs. of bananas (fresh basis) were consumed in processed form," says Carl R. Riecker, Brownsville (Texas) manager of Pan-Am Foods, Inc., wholly-owned subsidiary of United Foods, Inc., Houston. "About 17 million lbs. of this quantity was frozen, and we can account for about six million lbs. of that amount."

Raw Material from Mexico

The Pan-Am banana-freezing operation is one of a number in Texas in which the raw material is imported from south of the border, to be processed and sold in the United States. Among others are pineapple canning, coffee roasting and seafood freezing.

Pan-Am's bananas are purchased mainly from brokers in Mexico, although some quantities also are bought direct from producers in that country and in Central America. The Gros Michel variety, out of the vast family of this popular fruit, has been found best for the company's puree operations. The bananas are received green, on stems.

Important Manufacturing Market

After careful preparation, packing and freezing—details of which are provided in an accompanying series of pictures and captions—the frozen puree finds a ready U.S. market. In the bakery field, it is employed in pies, breads, cakes, turnovers and waffles. Ice cream manufacturers utilize it, as do freezers of pies and other desserts. Baby food canners and yogurt makers are also good customers. Perhaps the newest use is in frozen juice concentrates, a blend of orange and banana proving to have important repeat characteristics.

For this manufacturing trade, the company packs its puree in 30-lb. tins and in 40-lb. Mead fibre containers. "Some customers prefer one, some the other, so we provide both," says Mr. Riecker. "But they all agree on one point: they believe that the frozen product is superior to other processed purees."

Utilization research being conducted in Texas and in Florida promises additional outlets. Pan-Am officials believe they are approaching the commercial stage on one or two other items as this is written.

Other Products Frozen

Pan-Am Foods was established in Brownsville, Texas, in 1944. It was incorporated in 1947, and recently has become a subsidiary of United Foods. Officers of the latter include Mr. Riecker (a founder of Pan-Am) as secretary-treasurer, plus Irvin Kaplan as president, Gerald Rauch and Jerry Finger as vice-presidents. In addition to its banana pack, Pan-Am packs frozen vegetables under its own and buyers' labels, and processes frozen shrimp for Booth Fisheries Corp., located next door.

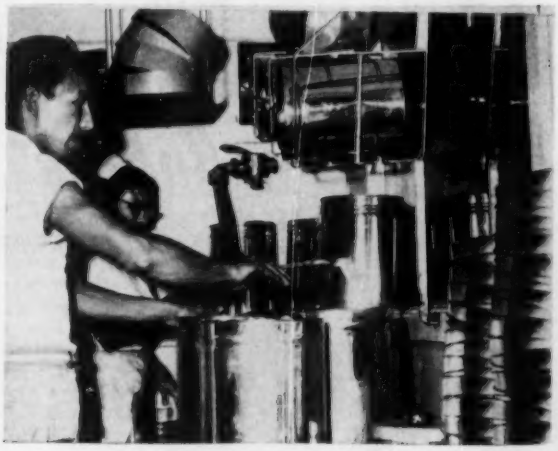
1 BANANAS destined for frozen puree are received green on the stems, and here are being suspended in ripening rooms where time, temperature and humidity are adjusted to bring them to the desired maturity. Temperature range is usually 72 to 75° F.

2 OVERHEAD MONORAIL conveyor system is utilized to carry the ripened fruit to the preparation department. At this point, bananas are removed from their stems and separated into individual units for introduction into the washer.

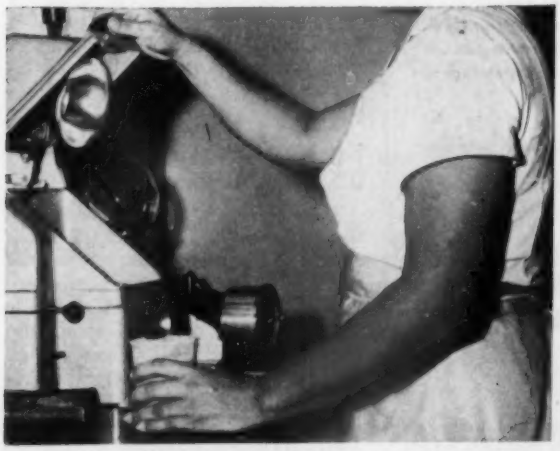
3 WASHING by means of gentle sprays suspended over a continuous woven wire belt conveyor. As with most factory-ripened fruit, this is better done after maturity has been achieved than on arrival at the processing plant.

4 PEELING is a hand operation, handled at long tables under lights, a section of one such table being seen here. Continuous conveyors bring washed fruit to the workers, and carry off both bananas and the waste skins and culls.

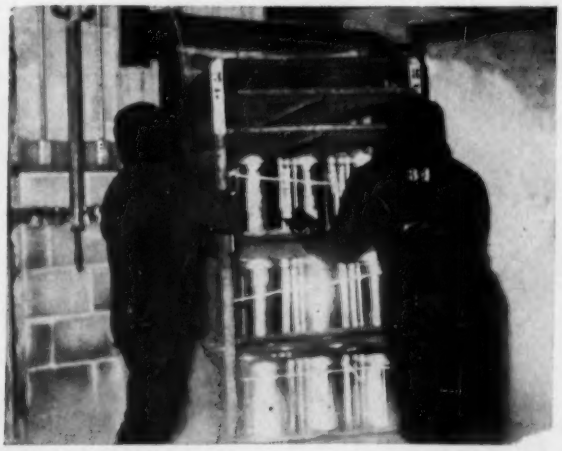
5 INSPECTION AFTER PEELING is one of several culling operations to assure a quality product, others being on arrival, during and after ripening, during washing and, as indicated above, during the peeling. Good fruit travels on to the pulpers.



6 AFTER PULPING, the banana puree is filled into 30-lb. tins (shown here) or 40-lb. fibre, and then are closed with slip cover lids by the employee in the foreground. Company food technologist may be seen in background, sampling the batch.



7 FOOD TECHNOLOGIST continually checks viscosity, moisture content and other characteristics of banana puree, in addition to watching the general quality level. She also aids in evaluating values of raw products, supplies, etc.



8 PUREE IN TINS is placed on wheeled trucks, and the latter go into the blast freezer for the processing operation. The freezer has a capacity of 200,000 lbs. per day, is chilled by fin-type Frick Co. coils to -30° F.

CANNED FOODS

Big U.S. Pack in Prospect This Season

Fruit pack looks large: The U.S. 1961 commercial apple crop for all uses is estimated at 125 million bu., up from less than 109 millions in 1960 . . . California's 1961 apricot pack (biggest share of the U.S. total) is reported by Canners League of Calif. as 4,743,945 cases (24/2½ basis), down from 5,949,128 in 1960 . . . The U.S. cranberry crop (usually two-thirds canned) is down 11%, from 1,340,700 bbls. in 1960 to 1,198,000 in 1961 . . . U.S. sweet cherry harvest (heavily to canning) went up from 70,520 tons in 1960 to 97,500 in 1961 . . . U.S. red tart cherry crop (mainly canned and frozen) has totaled 138,310 tons this year, up from 116,140 tons in 1960 . . . California's cling peach harvest (almost entirely for canned peaches, cocktail, salad and nectar) is estimated at 610,000 tons in 1961, about the same as the 612,000 tons in 1960 . . .U.S. freestone peach prospects (for canning, freezing and fresh shipping) are for 49,570,000 bu., a gain over the 48,813,000 bu. of 1960 . . . The bartlett pear crop in the three Pacific Coast states (where most of the U.S. canned pack is produced) is estimated at 439,500 tons, up from 424,250 in 1960. The U.S. pear crop is also up, by about 3% over 1960 . . . California's canned ripe olive shipments, in the seven months ending June 30, have jumped to 1,525,540 cases (48/1T) from the 1,163,211 cases reported for the same period in 1959-60 . . . The canned fruit pack of Argentina in 1961 is estimated at 1,500,000 cases (24/2½s), double the 750,000 cases of 1960. Of the 1961 output, 1,400,000 cases are peaches, and the remaining 100,000 cases are largely apricots, cherries and pears. Exports in 1961 are expected to total 560,000 cases, compared with 124,000 in 1960 and 572,000 in 1959.

Small gain in vegetables: The U.S. canned vegetable pack is expected to show a gain of about 3% in 1961, compared with 1960. Acreage for processing is up about 10%, but the lion's share of the gain is for freezing. . . The U.S. asparagus pack, first to be reported on by Natl. Canners Assn., is reported to be 8,357,277 cases (basis 24/303s), against 7,970,-979 cases in 1960. The California white pack showed a considerable gain, while the national green output declined moderately. . . The Wisconsin-Minnesota-Illinois canned pea pack, which usually represents 70% or better of the U.S. output, has totaled 20,869,717 actual cases in 1961, up from 18,369,107 cases in 1960, according to Wisconsin Canners Assn.

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DRY FOODS

Big Nut Packs in U.S. and Abroad

More nuts in prospect: The shelled almond pack in five leading nations outside of the United States is forecast by FAS at 114,500 short tons, up from 51,200 in 1960. The U.S. will add 35,000 tons to the 1961 total, also a gain over the 26,000 tons of last season. . . While production of filberts in three leading foreign nations is expected to be below average in 1961, it will still total 141,000 unshelled tons, up from 124,500 in 1960. The U.S. crop, grown in Washington-Oregon, is forecast at 10,600 tons this

season, against 9,000 last year. . . The Pacific Coast walnut crop is expected to be 70,800 tons this season, compared with 72,800 in 1960. . . The U.S. pecan crop (from 11 southern states) may total 112,100 tons, largest on record, and well above the 93,750 tons of 1960.

FROZEN FOODS

Gains Are Recorded In Many U.S. Packs

Convenience fish packs grow: U.S. packs of frozen fish sticks and fish portions, in the first half of 1961, compared with 1960 as follows, according to F&WS (thousands of lbs.):

Item	1960	1961
Sticks, cooked	30,603	33,613
raw	2,199	2,211
total	32,802	35,824
Portions, breaded-cooked	3,385	4,960
breaded-raw	17,912	21,525
unbreaded	827	903
total	22,124	27,388

Seafood pack is up: U.S. production of frozen fishery products (other than convenience items) has amounted to 176,467,000 lbs. in the first seven months of 1961, says F&WS. This compares with 172,310,000 lbs. in the like portion of 1960. Salt-water fish items are ahead of last year substantially, while shellfish packs fell off

the simple way to save money on conveyor belting

Work out your belting problems with a TON-TEX engineer

For 34 years Ton-Tex has furnished industry with conveyor belting that's exactly right for each job. Laminated plies of cotton duck are impregnated with compounds and firmly bonded together to produce a belt for your specific needs — whether horizontal or incline conveying. Ton-Tex belting can be cleaned; will not impart taste or odor; can be vulcanized endless. Use the facilities of our engineering department to help you select the right conveyor belting.

PERMA-CLEAT belts (shown at right) will move products faster up steeper inclines. Can be made in different types of Ton-Tex belting, in many widths and heights of cleats for various applications.

PUR-O-TEX is a non-toxic, white belt. Resists moisture, heat, oil and grease. Ideal for conveying foods — packaged or unpackaged.

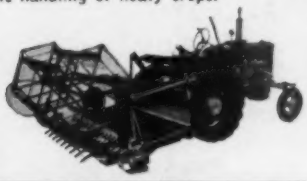
WHITE CONVEYOR belting is for fruits, vegetables and foods free from oils and grease. It is sanitary and makes an excellent "inspection" belt.

TON-TEX CORPORATION, GRAND RAPIDS 2, MICH.
31 COLUMBUS AVENUE, ENGLEWOOD, NEW JERSEY
1180 AUZERAIS AVENUE, SAN JOSE 26, CALIFORNIA

TON-TEX CONVEYOR AND TRANSMISSION BELTING

TON TEX

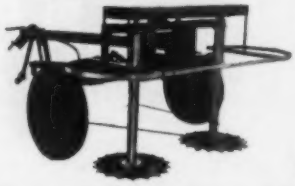
TRACTOR-ROWERS: Cut and windrow. Heavy duty design for fast, efficient handling of heavy crops.



GREEN CROP LOADERS: Fast, dependable loading even under severe crop and weather conditions.

PEAS?
PUMPKINS?
SPINACH?
LIMA BEANS?

LIMA BEAN CUTTER: Cuts two rows at once, placing in single windrow. Cuts below crown, reducing pod damage. Harvests cleaner, with minimum of roots, dirt.

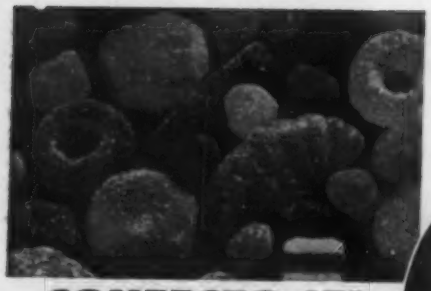


CUT-LODE HARVESTERS: For once-over harvesting of spinach, greens, green peas — converts to lima bean loader.

HARVEST THEM BETTER WITH HUME

PUMPKIN LOADER: Loads pumpkins of varied sizes gently, cleanly. Also available: Hume pumpkin windrower.

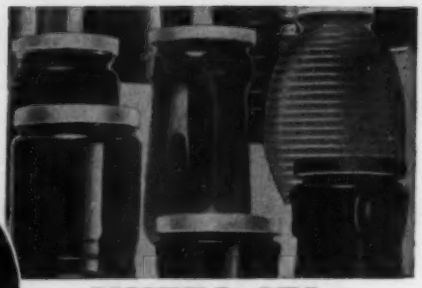
H. D. HUME COMPANY
Mendota Il, Illinois
BRANCHES: Hume Products Corporation
Mechanicsburg, Penna. Beaver Dam, Wisconsin



CONFECTO-JEL
Especially made for
Jellied Candies

better product
consistency and
quality for
over 40 years

SPEAS
APPLE PECTINS

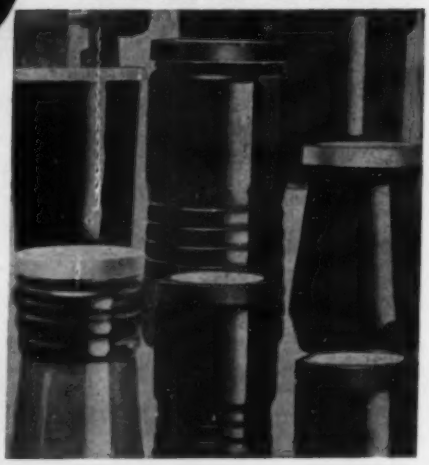


NUTRL-JEL
Regular and Slow Set
For Finest Jams, Jellies and Preserves

- Adaptable to wide range of PH levels.
- Neutral color and flavor—blends naturally with more different fruits than any other pectin.
- Gives product resiliency to avoid breakage during shipping.
- Improves spreadability of jams, jellies and preserves.
- Standardized to uniform strength so that product always has the same consistency.

Write, wire or phone for full information, technical advice, or location of nearest warehouse.

SPEAS COMPANY
GENERAL OFFICES • KANSAS CITY 20, MO.



Remove water, splits and skins with SCOTT VIBRO-LUX

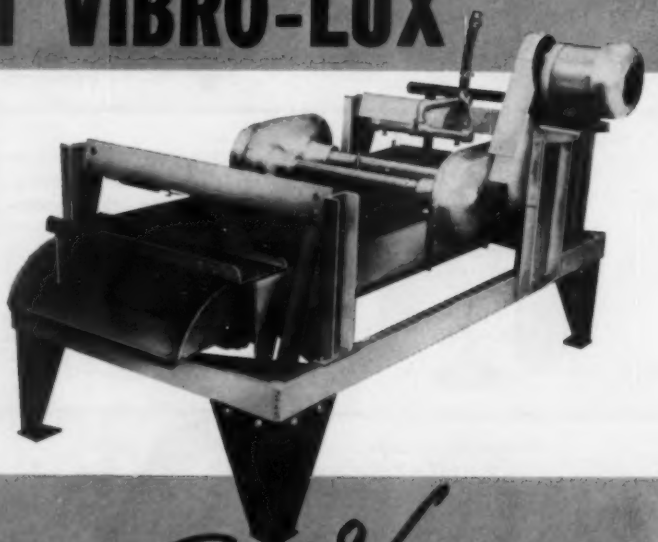
The Model FA 3500 separating unit removes excess water, most splits and skins ahead of the filler, graders or freezing units. Its vibratory action spreads the commodity evenly across the full width of the screens, speeding inspection.

Vibration is variable from about 900 to 1000 cycle a minute, yet there is no carry-through to floor or building.

Special screens available for any separating job.

Screens may be quickly changed from one size to another, and a divider plate permits simultaneous running of two different types or sizes of commodities.

Get the full story on the Scott Vibro-Lux FA-3500 . . . let us solve your separating problems! Write for complete brochure on this unit!



THE Scott Viner COMPANY
1224 KINNEAR ROAD COLUMBUS 8, OHIO

sharply in July.

Strawberries equal 1960 pack: Through Aug. 19, deliveries of strawberries to processors in major U.S. states this year compare with 1960 and 1959 as follows, according to USDA (millions of lbs.)

State	1959	1960	1961
Arkansas*	4.5	5.2	6.0
California	55.1	52.0	52.9
Kentucky	6.7	2.0	2.0
Louisiana	1.4	0.5	1.2
Michigan	9.9	11.2	7.4
Oregon	85.7	68.1	64.1
Tennessee*	5.7	12.0	13.0
Washington	37.7	36.1	39.7
TOTALS	206.7	187.1	186.3

More boysenberries available: California's boysenberry harvest totals 5,700 tons, against 4,800 tons in 1960, according to Bush Berry Advisory Board. In the Northwest, Oregon's crop remained stable at 1,976 tons tons in 1961 and 1,948 in 1960, while Washington's yield dropped from 204 to 77 tons. Most of the crop goes to market in frozen form.

Frozen concentrates up: Florida's pack of frozen citrus concentrates, from Nov. 1 to Aug. 1, has been as follows in the last two years, according to Fla. Canners Assn. (thousands of gals.):

Item	1959-60	1960-61
Orange	78,164	84,273
Grapefruit	1,611	3,857
Blend	271	237
Tangerine	320	1,225
TOTALS	80,366	89,592

GLASSED FOODS

Production Up During First Half of Year

Bigger total pack: Deliveries of glass containers to food packers in the first half of 1961 are ahead of 1960, according to USDC. In thousands of gross, packers have received the following amounts in the two half-years:

Item	1960	1961
Narrow-neck	7,796	8,115
Wide-mouth	21,134	21,661
TOTALS	28,930	29,776

Peanut butter output a record: Shelled peanuts used for peanut butter by U.S. packers totaled 418.0 million lbs. in the year ending Aug. 1, 1961. This is an all-time high in production, well ahead of last year's record of 366.1, and also well above the post World War II peak of 349.3 in 1955-56.

Honey outlook good: Both bees and nectar-bearing plants were in good shape in most sections of the U.S. through mid-September, and the annual honey harvest is continuing its promise of being a good one, probably about equalling the big pack of 1960.

Just look at this picture. It is truly amazing the shapes, contours, curves and combinations that can be engineered from patented OMNIFLEX Belts manufactured only by Ashworth Bros., Inc. This particular installation, that looks so much like a modern super highway interchange, carries crackers from wrapper to carton machines, continuously without transfer, through numerous 180° turns.

The solution to uninterrupted product flow during your continuous processing operation may not require as complicated a setup as did this problem. Chances are your need can be met with a standard Ashworth design; but, where analysis of service requirements indicate special design, Ashworth Engineers can do the job.

Engineering, plus accurate selection of wire analysis, plus careful fabrication insure quality woven into every Ashworth belt. You can depend on Ashworth to carry the load . . . continuously.

Consult your nearest Ashworth Sales Engineer or write directly to:

ASHWORTH BROS., INC.

WINCHESTER, VIRGINIA

Sales Offices in Principal Cities

Processed Food Prices

CANNED FOOD PRICES

F.O.B. packing plant, per dozen containers, as of the first of the month indicated. Data compiled from latest available price lists of individual packers. Districts as follows:

ATLANTIC (Atl.) — Me., N. H., Vt., Mass., Conn., N. Y., N. J., Penna., Md., Del., Va.

SOUTH (S.) — N. C., S. C., Ga., Fla., Ky., Tenn., Ala., Miss., Mo., Ark., Ia., Okla., Tex., P. R.

MIDWEST (M.)—Ohio, Ind., Ill., Mich., Wis., Minn., Iowa, S. D., Neb., Kans.

WEST (W.) — Alaska, Ariz., Calif., Colo., Hawaii, Ida., Mont., N. M., Ore., Utah, Wash., Wyo.

Prices are in dollars and cents, with the dollar omitted when the range covers more than one dollar. When the range is 2 dollars or more, the prices are averaged.

$1.75 to $1.95 is written 1.75-95
$1.75 to $2.95 is written .75-2.95
$1.75 to $3.95 is averaged 2.95

CANNED FRUITS

	August 1, 1961 —303—	—10—	September 1, 1961 —303—	—10—
Apples, sliced				
Atl.		11.00		11.00
Wes.	1.90	10.50	1.90	10.00-50
Applesauce, fancy				
Atl.	1.30-45	.75-8.00	1.25-35	.75-8.00
Wes.	1.62-70	9.50	1.55-67½	.75-9.25
Apricots, ch. hlvs.				
Wes.	.95-2.05	11.15-70	.95-2.05	.85-10.50
Cherries—Red Tart Pitted, water				
Atl.	2.10-25	13.75	2.27½	12.50
Mid.	2.10-25	14.00	2.10	12.50
Wes.	2.22-35	13.25-75	2.65	13.25
Cherries—Sweet Unpitted, Wes. Ch.				
dark	3.57½	20.70	3.47½	20.70
light	3.30	19.00-25	3.30	19.00-25
Citrus—Grapefruit (303 & 46 oz.) fcy. swtnd.				
So.	1.60-70	9.50	1.62½	9.50
Citrus-Salad (303 & 46 oz.) fcy. swtnd.				
So.	2.50		2.50	
Cranberry Sauce (No. 300) fcy. puree				
Atl.	1.75	10.50	1.75	10.50
Figs				
Wes.	2.52½	13.45	2.52½	13.45
Fruit Cocktail, choice				
Wes.	2.00-12½	10.75-90	1.95	10.95
Fruits For Salads, fcy.				
Wes.	3.25	16.75	3.25	16.75
Olives, Ripe (No. 1 Tall) Wes.				
lg.	2.90	18.10	2.90	18.10
ex. lg.	3.25	19.00	3.25	19.00
Peaches—Clingstone, Wes. ch.				
slice	1.85	9.50	1.65-70	8.25-85
hlvs.	1.85	9.50	1.65-70	8.25-85
Peaches—Freestone, ch. hlvs. Elb.				
Mid.	2.85	10.50	2.85	10.50
Wes.		10.25	1.70-85	.85-10.20
Pears, ch. hlv. Bart.				
Mid.	2.30	13.00	2.15	13.00
Wes.	2.25	12.60	2.30-42½	13.00-80
Pineapple (No. 2) Wes. fcy.				
Slice	3.42½-47½	15.00	3.57½	15.00
Chnk.	3.32½	14.50	3.47½	14.50
Cr. hs.	2.80	4.90	2.90	11.90
Plums—Purple, ch.				
Wes.	2.10	11.25	2.10	11.25

CANNED VEGETABLES

	August 1, 1961 —303—	—10—	September 1, 1961 —303—	—10—
Asparagus (No. 300) fcy. lg. green				
Atl.	3.75-80	15.75	3.75-80	15.75
Mid	3.75	15.00	3.75	15.00
Wes.	3.75-85		3.75-85	
Asparagus, White				
Wes.	3.75-85		3.50	
Beans, Green Lima, fcy. small				
Atl.	2.10	.50-13.00	2.10	12.00-50
Mid.	2.00-10	12.00-25	1.85	12.00-25
Beans, Green Snap, fcy. cut (Wes. B. L.)				
Atl.	1.45-50	8.00-50	1.35-40	7.50-75
So.	1.50	8.00	1.50	8.00
Mid.	1.45-55	9.00-50	1.45	.50-9.00
Wes.	.90-2.00	10.00-35	.90-2.00	10.00-35
Beans, Wax Snap, fcy., cut.				
Atl.	1.45	.50-9.00	1.45	8.00-25
Mid.	1.65	10.00	1.45-50	9.25-50
Beets, fcy. sliced				
Atl.	1.30	6.50	1.12½-17½	5.10-50
Mid.	1.25	6.25	1.15-25	.50-6.25
Wes.	1.52½	7.00	1.47½	6.45
Carrots, fcy. diced				
Atl.	1.00-20	6.20-30	1.10	.50-6.25
Mid.	1.20	6.25	1.20	6.25
Corn-Golden, Cream & Kernel, fcy.				
Atl.	1.65	9.25-50	1.55-70	8.25
Mid.	1.60-70	9.50-70	1.50-55	9.00-25
Wes.	1.72½-77½		1.65-70	8.70
Corn-White, Cream & Kernel, fcy.				
Atl.	1.70	9.25	1.60	9.00
Peas, Green (No. 2 sieve), fcy. early				
Atl.	2.05	11.75	2.05	11.75
Mid.	2.00	12.00	2.00	12.00
Peas, Green (No. 2 sieve), fcy. sweet				
Atl.	2.00-07½	10.62½	2.05	10.62½
Mid.	2.00	12.00	2.00	12.00
Wes.	1.75	9.40	1.75	9.40
Peas, Blackeye (No. 300) fcy.				
So.	1.25	7.50	1.25	7.50
Pimientos (4-oz.) whole, So.				
tin	1.65		1.65	
glass	1.85		1.85	
Potatoes, Sweet (No. 3-Vac.) fcy. hvy. syrup whole				
Atl.	1.65	9.50	2.10	9.50
So.	2.75	10.00	2.00	10.00
Potatoes, Sweet (No. 3-Vac.) fcy. vacuum whole				
Atl.	2.30		2.30	
Potatoes, White, fcy. whole tiny				
Atl.	1.10	6.50	1.05	6.25
So.	1.25	9.00	1.15-25	
Pumpkin (No. 2½), fcy.				
Atl.	1.55-60	5.50-75	1.55-60	5.50-75
Mid.	1.60	5.50-75	1.65	5.75
Wes.	1.60	5.70	1.60	5.50
Spinach, fcy.				
Atl.	1.40	7.00	1.45	7.50
So.	1.15-20	5.50-65	1.20	5.50-65
Wes.	1.10-17½	.85-5.30	1.17½-32½	.85-5.30
Other Green, So. fcy.				
trnp.	.92½	4.25	.95	
msld.	.92½	4.25	.95	
Sauerkraut, fcy.				
Atl.	1.27½	5.75	1.40-60	5.75
Mid.	1.27½-30	5.85	1.27½-30	5.85
Tomatoes, Ex. Std. (Wes. fcy.)				
Atl.	1.60	8.25-50	1.60-67½	8.00
Mid.	1.50-65	8.25-50	1.60-65	8.50-75
Wes.	1.60-65	8.50	1.50-62	.87-8.00
Tomato Catsup—Tin, fcy.				
Atl.		11.00-90		11.00-90
Mid.		.75-11.00		.75-11.00
Wes.		10.50-75		11.00
Tomato Juice (3-cyl., Qt.) fcy.				
Atl.		2.60-65		2.60-65
Mid.		2.35		2.35
Wes.		255		2.55
Tomato Paste (6 oz.) 26%				
Atl.		10.85		10.85
Mid.		14.00		14.00
Wes.	1.12½	14.00	1.03-06	14.00-50
Tomato Puree (No. 2½) fcy. 1.045 (Wes. 106)				
Atl.	2.37½	7.50	2.37½	8.00
Mid.		.50-7.00		7.00-50
Wes.	1.75	8.50	2.65	.60-9.00
Tomato Sauce (8-oz.) fcy.				
Atl.		11.00		11.00
Wes.		8.90	.87½	9.25-50
Mixed Vegetables, fcy. Peas-Carrots				
Atl.	1.65	9.75	1.60	.50-8.75
Mid.	1.65	9.50	2.15-20	7.50
Wes.	1.62	9.00	1.60-65	9.25-50
Mixed Vegetables, Succotash, fcy.				
Atl.	2.05	11.00	2.10	11.00
Mid.	1.75	9.75	1.75	9.75
Mixed Vegetables, other				
Atl.	1.55-75	9.75	1.55-75	9.75
Wes.	1.45	7.75	1.45	7.75

FROZEN VEGETABLES

(Retail per doz.)
(Inst. per lb.)
(Grade A)

	August 1, 1961 —Retail—	—Instl.—	September 1, 1961 —Retail—	—Instl.—
Asparagus—Jumbo 10-oz., 40-oz.				
Atl.	4.40	.52	4.40	.49½-.53
Wes.	4.07	.50	3.95	.47
Beans, Fdhk, Lima—10-oz., 40-oz.				
Atl.	2.15-35	.25	2.15	.23
Wes.	1.85-87	.21	1.85-87	.18½
Beans, Baby Lima—10-oz., 40-oz.				
Atl.	2.15-35	.25	2.15	.23
Wes.	1.87-95	.22-.25	1.87-95	.22-.25
Beans, Green Snap—Reg. 9-oz., 40-oz.				
Atl.	.65-2.05	.19	1.65	.17-.19
Wes.	1.65-70	.19½	1.57-65	.18-.20
Beans, Green Snap—Fr. Cut. 9-oz., 40-oz.				
Atl.	.65-2.05	.19	1.45	.17½-.18
Wes.	1.65-70	.19½	1.55-70	.18
Beans, Italian—9-oz., 40-oz.				
Atl.	2.35		2.00	
Wes.	1.75	.21	1.75	.22
Broccoli—10-oz., 32-oz., Spears				
Atl.	2.49	.22	2.15	.22
Wes.	1.85	.17-.19	1.35-55	.17½
Brussels Sprouts—10-oz., 32-oz.				
Wes.	2.27-95	.27-.32	2.00	.23-.27
Carrots—50#				
Atl.		.08		.06½-.07
Wes.		.06		.06
Cauliflower—10-oz., 32-oz.				
Atl.	2.55	.19	2.15	.17½-.22
Wes.	1.77-85	.17	1.45	.17
Corn Cut—10-oz., 40-oz.				
Atl.	1.99	.16½	1.35-40	.15-.16
Wes.	1.50-65	.16½-.21	1.25-30	.14½
Corn, Cob—2-ear, 12-ear				
Mid.	2.60		2.60	
Wes.	1.80		1.80	
Kale—10-oz., 32-oz.				
Atl.	1.63		1.63	
Mixed Vegetables—10-oz., 40-oz.				
Atl.	.75-2.05	.20	.75-2.05	.20
Mid.	1.75	.20	1.75	.20
Wes.	1.65-70	.19	1.65-70	.19
Okra—10-oz., 40-oz.				
Atl.	1.80	.22	1.80	.22
Peas, Blackeye—10-oz.				
Wes.	1.82½		2.25	
Peas, Green—10-oz., 40-oz.				
Atl.	1.79	.20	1.45-55	.18-.19
Mid.	1.37½-40	.16½	1.37½-40	.16½
Wes.	1.50-55	.17-.18	1.35-45	.14½-.15½
Peas & Carrots—10-oz., 40-oz.				
Mid.	1.17½	.16	1.17½	.16
Wes.	1.35-50	.14-.16	1.35-50	.14-.16
Potatoes—9-oz., 40-oz. Atl.				
F. F.	1.65-79	.19	1.65	.21
whip	1.52		1.52	
puffs	1.63		1.63	
Potatoes—9-oz., 40-oz. Wes.				
F. F.	1.40		1.40	
shred	1.15	.07½	1.15	.07½
Pumpkin & Squash—12-oz., 4-lb.				
Atl.	1.63	.12	1.30-75	.10½-.12½
Wes.	1.00-30	.07½-.08	1.00-30	.07½-.08
Spinach—10-oz., 48-oz., Leaf				
So.	1.78	.09½	1.78	.07
Wes.	1.10-25	.08½-.09	.95	.08-.09
Spinach—10-oz., 40-oz., chopped				
So.	1.70	.09½	1.70	.09½
Wes.	1.10-1.20	.08	.92	.07½-.08½
Succotash—10-oz., 40-oz.				
Atl.	2.25	.21	1.95	.20
Wes.	1.75-77	.20	1.75-77	.20

FROZEN FRUITS

	—303— —Retail—	—10— —Instl.—	—303— —Retail—	—10— —Instl.—
Apples (30# sliced)				
Atl.		.12½		.12½
So.		.13		.13
Apricots (30# Pitted)				
Wes.		.14		.14
Cherries Red (30# Pitted)				
Wes.		.21		.21
Cherries, Sweet (30#)				
Wes.		.26		.24½
Grapes and Pulp (44#)				
Atl.		.12½		.12½
Peaches, Freestone (12-oz., 30# sliced)				
Atl.	2.58	.18	2.00	.17½
Wes.	2.25	.13½	2.25	.13½
Blackberries (12-oz., 30# sliced)				
Wes.	1.50	.17-.17½	1.50	.17-.17½
Blueberries (12-oz., 30#)				
Atl.	3.29	.21-.25	3.29	.22½-.24
Mid.		.27½		.22½-.25
Boysenberries (30#)				
Wes.	2.25	.13½	2.25	.25-.27
Raspberries, Black (10-oz., 30#)				
Atl.	2.90	.32	2.90	.32
Wes.		.32		.32
Raspberries, Red (10-oz., 30#)				
Atl.	2.40	.26	2.50	.26
Mid.	2.20		2.20	
Wes.	2.25	.20½-.21	2.10	.21½-.22
Strawberries (10-oz., sl., 30# whl.)				
Atl.	2.30	.24	2.15-30	.24
Wes.	2.05	.20½	1.85-90	.19
Mixed Fruits (12-oz.)				
Wes.	2.85		2.85	

FROZEN JUICES

	August 1, 1961 —Retail—	—Instl.—	September 1, 1961 —Retail—	—Instl.—
(Retail per doz. 6 oz.) (Inst. per doz. 32 oz.)				
Grapefruit				
So.	1.15	6.00	1.15	6.00
Lemon				
Wes.	.96		.96	
Lemonade				
So.	1.16		1.16	
Wes.	.96		.96	
Lemonade, Pink				
Wes.	.95		.95	
Limeade				
So.	1.00	5.00	1.00	5.00
Orange				
So.	1.75-80	9.25	1.75-85	9.25
Wes.	1.99	8.65	1.99	8.65

SUPPLIERS NEWS

Companies & Plants

Hoffmann-La Roche Inc., Nutley, N.J., is lowering the cost of both liquid and dry forms of vitamin A. The new base price for liquid is 7c per million units, and 9½c per million units for dry forms.

U.S. Steel Corp., Pittsburgh, Pa., has developed "Ferrolite 10," a new grade of lighter, thinner tin plate which is priced 15c per base box lower in all basis weights than present Ferrolite.

The Container Division of **Rheem Manufacturing Co.** Linden, N.J., has opened a new Research and Technical Service Center in a separate building at Division headquarters in Linden.

Wright Machinery Company Div. of Sperry Rand Corp., Durham, N.C., is marketing Pak-Rapid pouch and strip packaging machines manufactured by Pak-Rapid, Inc., West Conshohocken, Pa.

Union Carbide Chemicals Co., New York City, has formed an integrated Research and Development Dept. at its Technical Center in South Charleston, W. Va.

MRM Co., Inc., a manufacturer of labeling machines and filling equipment, is moving into its new plant in Technical Industrial Park, Plainview, L.I., N.Y.

Men in the News

Daniel S. Cvacho has been promoted to the newly created position of director of packaging engineering, Reynolds Metals Co., Richmond, Va.

Nason E. Allen has been named market manager, Dobeckmun Div. Dow Chemical Co., Cleveland, Ohio.

T. C. Fogarty

W. B. Bruce

Thomas C. Fogarty, president of Continental Can Co., New York City, has been named chief executive officer. He succeeds Gen. Lucius D. Clay who will continue as chairman of the board.

Walter R. Bruce has been appointed manager of sales promotion and advertising, Canco Div., American Can Co., New York City.

Dr. Carl E. Barnes, formerly vice president and research executive for Minnesota Mining and Manufacturing Co., St. Paul, Minn., has joined FMC Corporation, San Jose, Calif., as vice president—research.

Everett O. Jones has been appointed general manager, Anderson, Ind., corrugated shipping container plant of Container Corp. of America, Chicago.

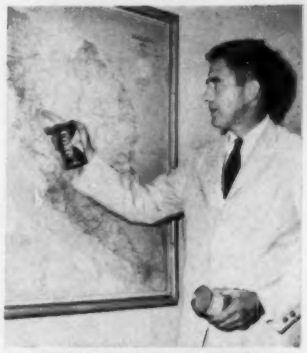
Obits

William Findlay Wilson, 54, president and general manager, Anchor Cap & Closure Corp. of Canada, Ltd., Toronto, Canada.

John L. Ryon, 66, vice president and member of the board and executive committee, International Salt Co., Clarks Summit, Pa.

Correction

In a previous issue of Canner/Packer we wrongly stated that W. F. Dent had been appointed regional sales manager of Crompton & Knowles Packaging Corp., New York City. Mr. Dent was appointed regional sales manager for the Wrap-King Div. in the mid-western states and national sales manager for the firm's Redington Div., Bellwood, Ill.



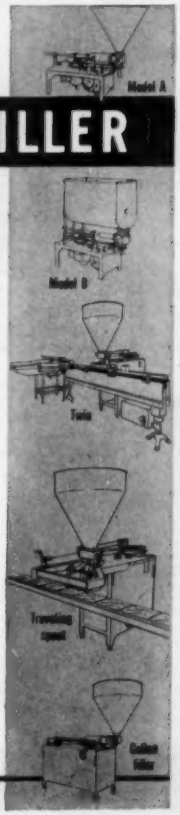
TO RETURN OR NOT TO RETURN! The Malayan tin mining industry has joined forces with the steel industry, can companies and soft drink canners to promote soft drinks in throwaway cans of tin. Malayan Tin Bureau Director R. D. Coursen (shown above) points to Ipoh, Federation of Malaya. It is the major Malayan tin-producing area, and Mr. Coursen feels that the chances are great that the protective tinplating on the new "skinny" tinplate Coke can he's holding was mined near Ipoh.

Low cost filling of #10 tins and gallon containers

SIMPLEX PISTON FILLER

Fast, accurate filling of purees, fruit pastes, sauces and other semi-solids and liquids. Available with cone or U shaped hopper and individually driven agitator. 8 ft. conveyor optional. Twin filler also available.

Simplex Model F fills from quart to gallon without change of parts.



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- EASILY CLEANED IN A FEW MINUTES!
- HAND LEVER CUTS OFF FLOW INSTANTANEOUSLY!
- DURABLE 316 STAINLESS STEEL IMPERVIOUS TO ACIDS!
- EVERY MODEL ENGINEERED TO CUSTOMER REQUIREMENTS FOR GIVEN RANGE OF OPERATIONS!

Write for prices and Bulletin 106 • Representatives in all principle areas

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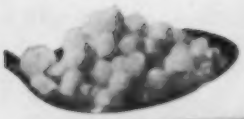

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canners fine granulated salt . . .

THE SPECIAL PURPOSE CUBE SALT THAT MAKES BETTER BRINE — Hardy Canners Fine Granulated Salt is a cube crystal salt, carefully double-screened to obtain the best size for canning needs. Hardy cube salt is more resistant to caking while in storage; provides a fast, even dissolving rate that insures fully saturated brine, uniform flavor. Produced under vacuum in the world's only quintuple effect evaporators to obtain unexcelled purity —guaranteed 99.8% + pure sodium chloride.

If you want the very finest salting operation available, install the Hardy ELECTRO-PORTIONER Liquid Dispenser. Provides completely automatic dispensing for brine and other liquids, handles up to 300 containers per minute with precise accuracy. No waste or contamination — the ELECTRO-PORTIONER has totally enclosed recirculation. Available on low rental plan.

Write, wire or phone for more information and current prices.

HARDY SALT CO.
P. O. DRAWER 449
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6106

NEW PRODUCTS AND PACKAGES

Dry Soup Mixes

Campbell Soup Co., Camden, N. J., is introducing a line of dry soup mixes under the brand name "Red Kettle." They are packaged in small aluminum cans rather than the customary envelopes. The cans are hermetically sealed and can be opened by pulling

a tab. The line includes 7 varieties: chicken noodle with diced chicken meat, beef noodle, cream of chicken, cream of mushroom, cream of potato, onion, and noodle with chicken stock. Several ingredients of these new soups are freeze-dried. The mixes are being packed two cans to a package.

Pickles

H. J. Heinz Co., Pittsburgh, Pa., has added Kosher Dill Spears and Fresh Dill Chips to its line of pickle products for the institutional market. These products are being nationally distributed in No. 10 tins packed 6

to the case. The spears are processed with the new "Flavor Guard" pickling process developed by the company's Research & Quality Control Div. They can be used as a sandwich or table pickle; the dill chips are a sandwich pickle.

Instant Mashed Potato

R. T. French Co., Rochester, N. Y., has announced a processing change in the manufacture of its instant mashed potato. It has altered the physical characteristics of the granules, so that it is now necessary to increase the amount of liquid used in reconstituting. The result is a 20% increase in yield, or 30 additional servings for each 6 lb. tin (No. 10). The new potatoes are double whipped for better flavor, have a high protein and vitamin content, and a low calorie and sodium content per serving. They also have an improved steam table holding time. French's has also developed a companion product—a 5 lb. 7 oz. tin of instant mashed potato with milk solids added. This new pack has a yield of 150 servings and does not need added milk.

Frozen Citrus Sections

Brownsville Shrimp Exchange and Cold Storage Corp., Brownsville, Texas, and Larry Lightner, Inc., also of Brownsville, have developed a new freezing technique which will preserve individual fresh sections of grapefruit indefinitely in frozen form. The new process involves the individual flash

freezing of the tree ripened citrus sections when the fruit is at the peak of sweetness and flavor. A non-caloric sweetener is added where needed for quality flavor control. The sections can be poured individually from the resealable polyethylene bags as needed. Remaining fruit can be returned to the freezer. The sections defrost quickly and are ready for use a few minutes after being removed from the freezer. Tangerines and oranges may also be processed by this method.

Vegetable Steaks

G & W Food Products Corp. of Ohio, Pemberville, Ohio, has introduced frozen Vegetable Steaks. They are designed for the weight conscious consumer; each 3½ oz. steak contains only 14 calories. The steaks are packed in 1 lb. packages which serve six and retails for 89c. The product's distribution, which is now just in Ohio, will soon be expanded to include Michigan, Indiana and Kentucky.

Oyster Stew

H. J. Heinz Co., Pittsburgh, Pa., has announced national distribution of ready-to-serve Oyster Stew. This is a

new addition to its line of ready-to-serve soups for institutions. It is packaged in 8 oz. "individual portion" cans that were very well accepted in test marketing in Omaha, Neb., and Columbus, Ohio. The product consists of Pacific Coast oysters, milk, butter, seasoning, and additives for flavor and stabilization.

Banan-o Drinks

Salada Junket Div., Salada-Shirriff-Horsey, Inc., Woburn, Mass., has introduced a product called Banan-o which is available in three flavors—banana chocolate, banana strawberry, and plain banana. Banana flavor crys-

tals, supplied by Plant Industries, Inc., are used in making these new drinks. Boxes contain 14 servings of each drink. Each serving is packaged in a triple-ply packet—paper on the outside followed by a layer of aluminum foil and an inner surface of polyethylene one-mil thick. They are produced by Milprint, Inc., using Bakelite polyethylene.

Oat Cereal

Quaker Oats Co., Chicago, Ill., is marketing a new pre-sweetened oat cereal called "Life." A spoon-sized, shredded oat product, Life is a vitamin enriched cereal, with high protein content. The 10-oz. package retails for about 29c. Quaker is introducing this product to capture a greater share of the cold cereal market.

New Package Briefs

Depressed Decanters: New decanters with depressed label panels which protect foil body labels are being used for the Veg Crest and Tomato Juice products of P. J. Ritter Co., Bridgeton, N. J.

Mexican Food Cartons: New package —a folding carton type — for "Red's" brand of frozen Mexican food specialties packed by Ingram's Food Products Co., Oakland, Calif. Tamales will still be packaged in plastic bags.

Pickle Barrel: H. J. Heinz Co., Pittsburgh, Pa., has announced national distribution of Genuine Dill Pickles which are packed in 40-oz., barrel-shaped jars reminiscent of the pickle barrels of yesteryear.

Film Packaging: Avisco 210 RS 1, manufactured by American Viscose Corp., Philadelphia, Pa., is being used by I. J. Grass Noodle Co., Chicago, Ill., to package its dry soup mixes which has increased packaging rate from 350 units per hour to 550-600 units.

Colorful Vignettes: New dinner cartons (6¼x4¼x3″) have colorful vignettes of the product ready to be served. Softened background gives product identification increased visibility. This design was adopted by La Choy Food Products, Archbold, Ohio, for its three (3 in 1) Chinese dinners.

Picture Recipe Package: General Mills, Minneapolis, Minn., has adopted a picture recipe package for its entire line of Betty Crocker layer cakes. Six dessert ideas in four-color photographs complete with recipes will be featured on a removable flap on the back of each package.

Aluminum Foil Container: A. F. Murch Co., Paw Paw, Mich., is distributing its frozen grape drink concentrate in an aluminum foil and fibre container which is being manufactured by R-C Can Co., St. Louis, Mo.

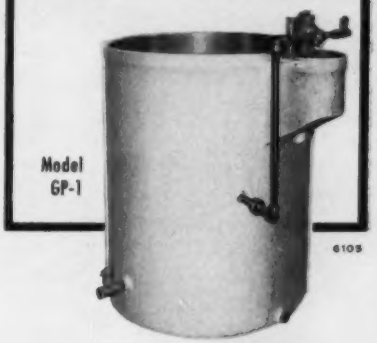
Compartmented Carton: Pillsbury Mills, Inc., Minneapolis, Minn., is using a new compartmented carton for its line of Angel Food cake mixes. Lined with glassine, it is divided into 2 sections, one containing egg-white mix, the other cake-flour mix. Cartons are supplied by Packaging Corp. of America, Rittman, Ohio.

Mexican Label: The national colors of Mexico—green, white and red—are being used on the newly designed labels for the products of Gebhardt Chili Powder Co., San Antonio, Texas. A color photograph of the packaged product appears on each label.

HARDY

QUIK-BRINER

AUTOMATIC BRINE MAKER



Hardy®

A new salt dissolver that gives superior service

The HARDY QUIK-BRINER provides a better way to make crystal clear, fully saturated brine that means high-quality food products. Designed to use evaporated salt to insure a brine of top purity. Constructed from non-corrosive, reinforced fiberglass; requires no attention except for recharging salt supply.

Operates by gravity flow which is adequate for most operations, can also be equipped with pump for increased output. Will produce up to 1000 gallons of brine per hour when pumped intermittently. Holds 2000 lbs. of salt.

The HARDY QUIK-BRINER is available on low rental plan for immediate delivery. Installation is easy and quick. Your Hardy Representative or Hardy's Technical Service Department is immediately available to help solve any brine making problem.

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I would like more information about the Hardy QUIK-BRINER.

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Company.....

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City.....State.....

Total Sales and Net Income of U. S. Processed Food Firms

for periods indicated, to dates indicated, in thousands of dollars (000 omitted), as reported by the companies. Figures in parentheses ( ) indicate losses.

FIRM/HEADQUARTERS	BUSINESS	PERIOD	—SALES TOTAL— 1960	1961	—NET PROFITS— 1960	1961
Beatrice Foods Co., Chicago, Ill.	Dairy and food prods.	3 mo. to 6/1	118,997	133,606	1,879	2,008
Consol. Foods Corp., Chicago, Ill.	Canned, other food prods.	12 mo. to 7/1	424,889	509,281	8,096	7,170
Pac. Veg. Oil Corp., San Francisco, Calif.	Vegetable oils	12 mo. to 7/1	117,200	103,900	785	915
Procter & Gamble Co., Cincinnati, Ohio	Veg. oils, other prods.	12 mo. to 7/1	1,441,548	1,541,905	98,078	106,633
Natl. Dairy Prods. Corp., New York, N. Y.	Dairy and food prods.	6 mo. to 7/1	833,883	885,653	25,076	23,610
Libby, McNeill & Libby, Chicago, Ill.	Canned, frozen foods	12 mo. to 7/1	294,707	270,027	4,204	2,608
General Mills, Minneapolis, Minn.	Cereal products	12 mo. to 6/1	537,818	575,512	11,515	12,832
Penick & Ford, Ltd., New York, N.Y.	Corn and maple prods.	6 mo. to 7/1	[a]	[a]	2,220	2,171
Am. Sugar Refining Co., New York, N.Y.	Cane sugar	6 mo. to 7/1	162,945	161,786	5,376	3,354
Stokely-Van Camp, Inc., Indianapolis, Ind.	Canned, frozen foods	12 mo. to 6/1	183,352*	195,000	3,456	6,030
U.S. Tobacco Co., New York, N.Y.	Nut products, tobacco	6 mo. to 7/1	17,060	21,747	1,580	1,419
Standard Brands, New York, N.Y.	Packaged foods	6 mo. to 7/1	267,195	301,318	8,447	9,059
H. J. Heinz Co., Pittsburgh, Penna.	Canned, glassed foods	12 mo. to 5/1	340,224	365,990	12,231	13,147
Castle & Cooke, Inc., Honolulu, T.H.†	Canned foods, cane sugar	12 mo. to 5/1	118,409	120,206	6,897	5,225
Nalley's, Inc., Tacoma, Wash.	Glassed and dry foods	9 mo. to 4/1	19,905	21,084	297	366
Frito Co., Dallas, Texas	Dry foods, snacks	3 mo. to 4/1	14,460	15,184	[a]	524
Pet Milk Co., St. Louis, Mo.	Dairy and frozen foods	3 mo. to 7/1	53,315	51,183	1,216	859
Pillsbury Co., Minneapolis, Minn.	Cereal products	12 mo. to 6/1	373,819	384,962	6,541	7,911
DiGiorgio Fruit Corp., San Francisco	Canned, fresh products	6 mo. to 7/1	47,704	48,838	663	17
Foremost Dairies, San Francisco, Calif.	Dairy products	6 mo. to 7/1	216,272	215,838	4,179	1,975
Van Camp Sea Food Co., Long Beach, Calif.	Canned seafoods	12 mo. to 6/1	57,098	61,748	1,949	2,670
Gerber Products Co., Fremont, Mich.	Baby foods	12 mo. to 4/1	131,118	138,078	7,070	8,032

a—not available. *Revised to include subsidiaries. †Subsidiaries included on various fiscal years.

Companies & Plants

Tony Downs Foods Co., St. James, Minn., is expanding its facilities in St. James and Madelia. A new plant and freezer is being built at St. James for processing Luigis Pizza. The plant will have 5,000 sq. ft. of floor space and the freezer, 7,500 sq. ft. The Madelia plant will have the addition of a beef boning division and two additional frozen meat lines. A new warehouse (150' x 50') is also being built here.

Chun King Corp., Duluth, Minn., is building a third plant in Cambridge, Md. The plant will initially serve as a warehouse distribution center which will eventually increase the Duluth plant's capacity by about 50%.

Armour & Co., Chicago, Ill., is purchasing Food Specialties, Inc., Worcester, Mass., manufacturer of Appian Way pizza and other pizza products.

Red Star Yeast & Products Co., Milwaukee, Wis., manufacturer of dry and compressed yeasts and yeast products, has purchased Chili Products Corp., Ltd., processor and dryer of chili peppers of Los Angeles, Calif. The west coast firm will operate as a division of Red Star.

Campbell's de Mexico, S.A. de C.V., will build a multi-million dollar food processing plant in Villegran, Guanajuato, Mexico. Production is expected to begin in the spring of 1962.

Due to a recent merger, **Liberty Cherry & Fruit Co., Inc.**, Covington, Ky., a processor of maraschino cherries and glace and candied fruits, will operate as a division of Beatrice Foods, Chicago, Ill.

Frito Company of Dallas, Texas, and **W. H. Lay & Co.**, Atlanta, Ga., plan to consolidate the two firms under the name of Frito-Lay, Inc.,

the only pump that MEASURES TRANSFERS *Automatically* for batch or continuous measurements

AUTOMATIC MEASURING

Measures and transfers fluid and semi-fluid ingredients to an accuracy of + or - ¼ of 1% at capacities to 100 G.P.M.

Let a Waukesha engineer explain how the MFC can automate your product stream.

WAUKESHA

WAUKESHA FOUNDRY CO., DEPT. 89G, WAUKESHA, WIS.

Want Something? Have Something to sell? Use a Canner/-Packer Classified Ad!

"Knox furnishes 85% of our juice bottles," says production manager of large cranberry cooperative

"Since Knox first supplied us with glass containers four or five years ago, we have increased our consumption of their bottles from 20 per cent of our total to 85 per cent," says the Production Manager of one of the nation's foremost producers and packers of cranberries.*

"This represents a considerable increase in quantity as well as in percentage, because our cocktail production has gone up 50 per cent since 1957, and has quadrupled since 1950," he said.

"There are two very important reasons why we use Knox Glass in such a large proportion. First is their bottle quality—we have enjoyed a tremendous reduction in breakage over the last four years. Glass breakage is not a real problem with us any more.

"The other benefit we enjoy from using Knox is their extremely dependable delivery. They deliver when they promise they will—and this dependability has allowed us to reduce our own bottle inventory from 50,000 cases to 15,000 cases for emergency use only.

"We've found we can depend on Knox."

Contact the new/Knox Glass for your glass container needs: Knox Glass, Inc., Knox, Pa., or any one of 37 sales offices.

*Name available on request

the new / **KNOX GLASS**

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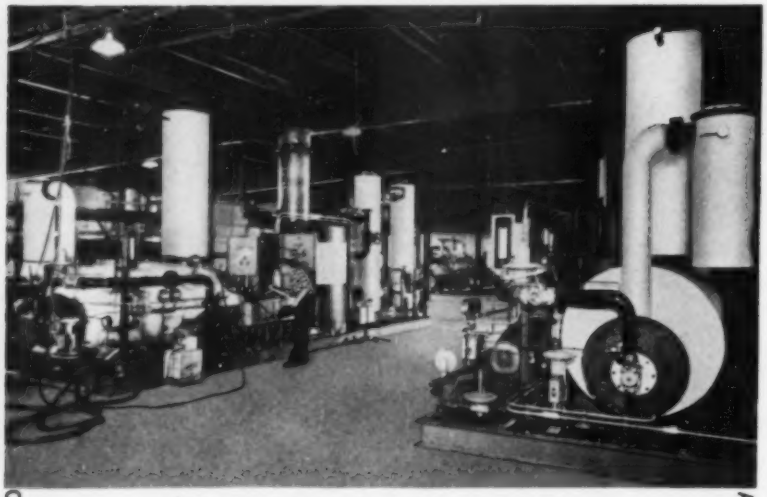
EVEN THE BIG ONES ARE FACTORY ASSEMBLED AND THOROUGHLY TESTED AT GAS ATMOSPHERES

The pair of 10,000 cfh high-purity nitrogen generators pictured below is undergoing complete factory testing prior to shipment to the customer. This is standard practice at Gas Atmospheres.

GENERATORS MUST EXCEED SPECIFICATIONS in production, gas purity, and dryness. This rigorous testing assures buyers of quick and easy start-up without job-site disorder, and it cuts servicing and maintenance to the bone.

GAS ATMOSPHERES ORIGINATED PACKAGED GAS GENERATION SYSTEMS by increasing the productivity of various components, consolidating operations, and designing the unit into as compact an area as possible. This means smaller generators today produce greater volume, and the entire unit can be factory assembled on a common base and shipped and installed as a complete unit.



Two compact 10,000 cfh high-purity packaged nitrogen generators on test floor at Gas Atmospheres Assembly Plant.

IF YOU USE GAS, EVEN IN SMALL AMOUNTS, it might pay you to produce your own with a modern gas generation system. It costs nothing to have your operation checked out by America's foremost designer and builder of packaged gas generation systems. Just call or write *Gas Atmospheres, Inc., 3855 West 150th Street, Cleveland 11, Ohio.*

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equipment for producing industrial gases

PACKAGED GAS GENERATORS PACKAGED GAS GENERATORS PACKAGED GAS GENERATORS PACKAGED GAS GENERATORS PACKAGED GAS GENERATORS

with headquarters in Dallas, Texas. Both are snack food manufacturers.

Men in the News

Grady O. Wheeler has been appointed vice president in charge of sales, Gebhardt Mexican Foods Co., San Antonio, Texas.

J. Richard Duntley has been appointed national advertising manager, Pacific Hawaiian Products Co., Fullerton, Calif.

Dr. Norman Oebker, formerly professor of horticulture, University of Illinois, Urbana, Ill., is now associated with the University of Arizona, Tucson, Ariz. Replacing him at the U. of I. is **Dr. Joseph Vandemark.**

Joseph M. Culbertson has been appointed director of sales, H. P. Cannon & Son, Inc., canned food processor of Bridgeville, Dela.

Charles A. Tucker has been appointed president of Frenchette, the low calorie foods division of Carter Products, Inc., New York City.

Douglas E. Frey has been appointed sales manager, Salada-Junket Div., Salada Foods, Woburn, Mass.

Gordon W. Ryan has been elected a vice president of General Mills, Minneapolis, Minn.

William A. Schroeder, executive vice president of Best Foods, a division of Corn Products Sales Co., New York City, has been named chairman of the newly formed Grocery Store Division of Brand Names Foundation, Inc.

Deaths

James Jackson Mulligan, 88, a retired editor of *The Canner* which was a predecessor of *Canner/Packer.*

Vincent A. Gugino, 51, president of Fredonia-Salsina Canning Co., Fredonia, N. Y.

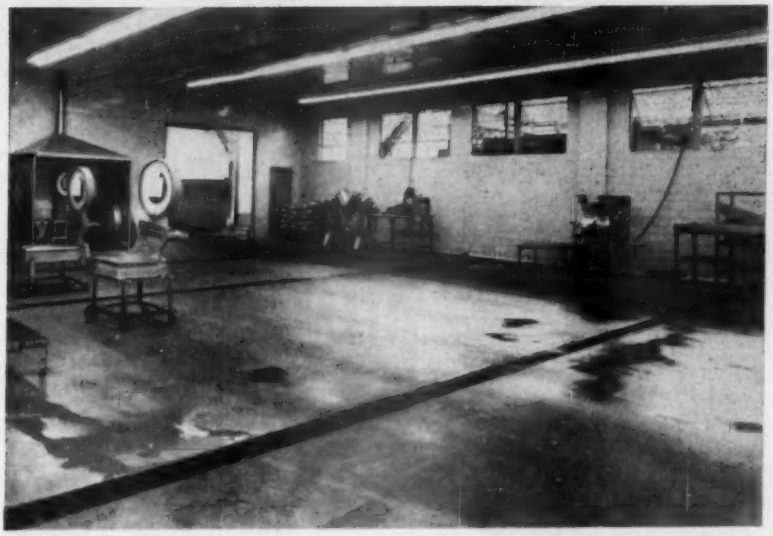
Maurice Douthitt, secretary of Big Stone Canning Co., Ortonville, Minn.

Henry M. Loomis, 86, organizer of the Claims Division, National Canners Assn.

R. Henry Morris, III, 64, retired special assistant for industrial liaison to the director of USDA's Eastern Utilization Research and Development Div., Wyndmoor, Pa.

Walter Allen Richards, 70, chairman of the board, Tom Huston Peanut Co., Columbus, Ga.

Dr. Russell H. Larson, 56, professor of plant pathology, University of Wisconsin, Madison.



GERBER'S INGREDIENTS ROOM, shown here, illustrates how Hycon 2-to-1 topping has restored appearance of the floor. The company has also used this epoxy surfacing compound on new construction.

How to Stop Floor Corrosion

Gerber applies an epoxy surfacing compound to both old and new surfaces

As part of a plant remodeling program in February 1961, the ingredients room floor of Gerber Products Company's Oakland Calif., plant was topped completely with an epoxy surfacing compound. Although other resurfacing materials have been used successfully at various Gerber plants, this epoxy compound is expected to protect the concrete from corrosion/erosion for at least ten years. This is an estimate based on a series of successful tests over a 3-year period plus a sizable application in service for two years. This topping may well be the answer to concrete floor deterioration which has plagued the canning/packing industry for years.

Testing Comes First

The tests began in May 1958, and consisted of applying patches of the epoxy compound in several processing rooms. Two were in the horizontal retort room and two were laid in the ingredients room on both sides of a drainage trench. Concrete in all of these areas was beginning to erode.

To make the tests, concrete was chipped out and cleaned thoroughly. A mortar of epoxy resin and sand was troweled onto the concrete until the patches were level. Mortar thicknesses ranged from a minimum of ¼-in. to a maximum of ¾-in. Sand was sprinkled on the topping to make the surface skid-resistant. These test patches were of various sizes from 18½ by 23½-in. to 22 by 25-in.

Within a year, the concrete around the test patches had eroded further, but the epoxy toppings were firmly bonded to the concrete and had not chipped or peeled. One test patch exposed to heavy steel-wheel dolly traffic was unaffected. This topping surpassed other floor surfacing materials that were tested at various times, but which usually failed in less than six months.

New Floor Is Next

The test results led to the surfacing of the entire floor of a new waste disposal building in 1958. Over the past two years the epoxy topping has held up well and is in excellent shape, despite a severe concentration of fruit acids in this area.

When overall plant modernization got underway last year, it was decided to resurface the entire 2500 sq. ft. of the ingredients room, including the three drainage trenches.

Actually, both dry and wet ingredients are handled in this room. Flours and starches are sifted and blended in one section, then transferred to batching tanks. Concrete erosion was slight in this area but heavy where No. 10 cans of pineapple are opened. Acid eventually corroded the concrete until aggregate was exposed, pitting the surface with hollows. Also contributory was the use of hot water, steam, detergents and scrub brushes to remove the etched particles of cement. Floors are washed thoroughly every 4 hours and hosed occasionally during the day.

These eroded floor areas had become extremely difficult to clean. There was always the possibility that dust would become a problem as the concrete dried. To solve this problem, a thin layer of epoxy seemed more practical and efficient than either a topping of concrete or pouring a new floor.

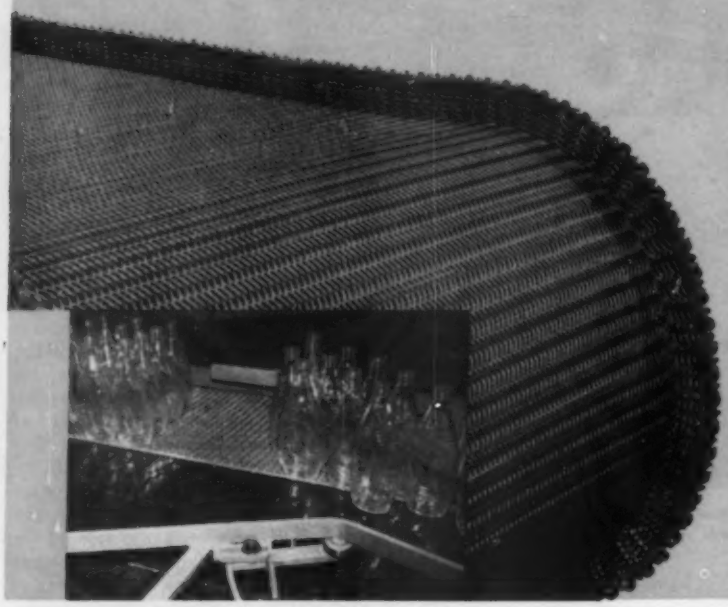
Contractor Does the Work

To make the floor surface smooth and even throughout the ingredients room, all machinery and equipment were removed before work started. Floor preparation and epoxy application were handled by the Harold A. Price Company, Inc., contractors who have specialized in this type of material.

Surface Cleaning. It took three men two days to ready the surface of the monolithic concrete floor after all production equipment had been removed. Adequate cleaning is vital for a permanent bond of the epoxy topping. All of the test patches were chipped off to level the areas and ensure proper drainage. The surface then was etched with a 20 per cent muriatic acid solution, flushed with water and allowed to dry. Sandblasting followed with 12 to 60 mesh grit, depending upon floor conditions. The concrete walls of the drainage, trenches, boundary angles and vitreous clay tile on the bottom also were sandblasted.

Epoxy Material. The epoxy topping is Hycon® 2-to-1 resin and hardener, a solvent-free material produced by Hodges Chemicals Co. Based on Shell Chemical Company's Epon® resins, it does not exhibit the pinholing, shrinkage or other defects common to conventional solvent-type compounds. It bonds equally well to concrete, masonry, steel and wood and is resistant

Over 3000 conveyor users in the West specify



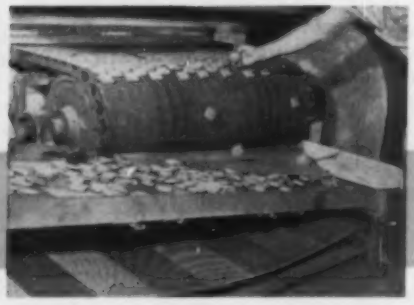
ALLOY WIRE BELT COMPANY

Conveyor Belts

- ***Reliable Engineering***
- ***Lower Cost***
- ***Faster, Dependable Delivery***

For material handling such as bottle loading-unloading, belts sometimes must be crimped to a 180° angle, travel at high speeds and be designed to minimize bottle friction.

Some conveyor installations require belts specifically designed for extreme conditions of quick freezing and corrosion. Processing of prunes is an important application of custom designed conveyor belts.



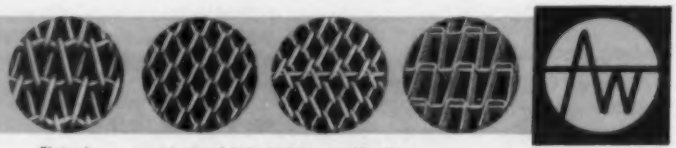
High operating temperatures is an important factor in some belt applications. Shown here is a standard belt designed to carry dog biscuits through a recirculating oven.

You can depend on an Alloy Wire belt to meet your specifications. If your conveyor system operates under unique or standard conditions of load, temperature range and corrosion, a belt will be made to fulfill your requirements!

Users of Alloy Wire Belt Co. products cover a remarkably wide range of industries and processes:

- *Food Processing.* Canning and Packing, Crate Loading, Can and Bottle Loading, Pet Food, Spray Cooling, Quick Freezing Vegetables, Juice Freezing, Bakery Products, Sea Food, Meat Packing, Candy.
- *Material Handling.* Glassware Annealing, Incandescent Lamps, Ceramics and Pottery, Package Conveying.
- *Processing Industries.* Cement, Rubber Products, Tanners.
- *Heat Treating.* Annealing, Silver Soldering, Brazing, Metal Washing.

Alloy Wire Belt Company is the only conveyor belt specialist with Pacific Coast Headquarters. You are assured of faster, more dependable delivery and service at lower costs; just call or write Alloy Wire Belt Company, today!



Flat wire or round wire fabricated to specifications

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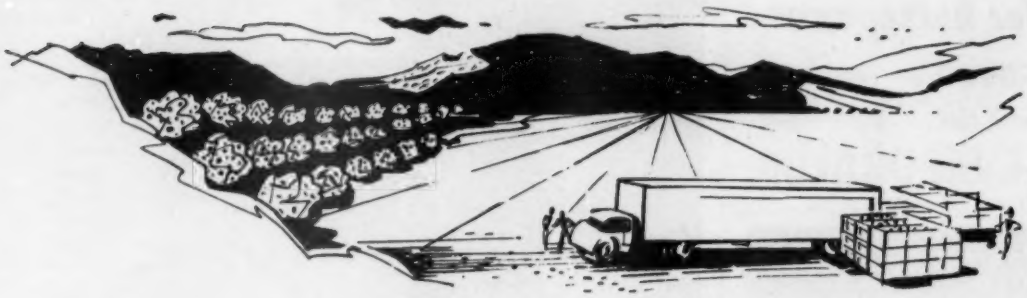
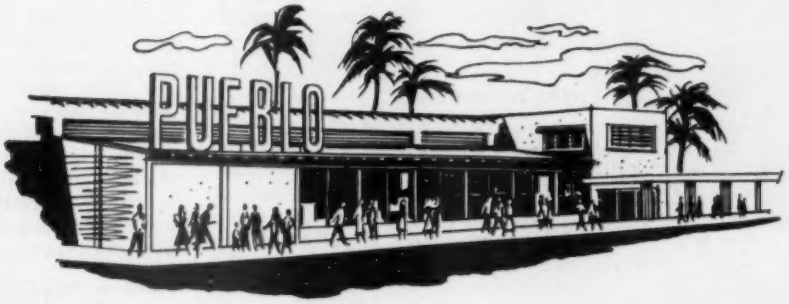


SHIPPING LINK

BETWEEN THE



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If you have cargo for Puerto Rico and U. S. East Coast ports, you can be sure of this fast, fortnightly eastbound service from California. Isbrandtsen's 'Round-World cargo liners call regularly at San Francisco and Los Angeles, then go directly to Puerto Rico.

That's why so many California shippers of premium fruits, vegetables and grains, bank on Isbrandtsen for reliable delivery to the Island Commonwealth. You can pay more for this kind of direct service but you won't find any line more dependable or economical. To be sure...

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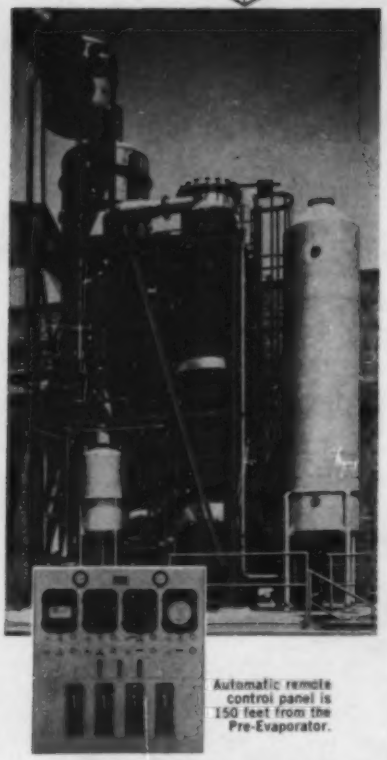

Automatic remote control panel is 150 feet from the Pre-Evaporator.

This Pre-Evaporator was designed, engineered and fabricated by THERMOVAC to process 80,000 lbs. of juice per hour—at an hourly savings of 40,000 lbs. of steam, over existing equipment! THERMOVAC will custom-engineer and fabricate processing equipment to save you production dollars! Write or call for immediate service; expert consultation.

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VITREOUS TILE AND CONCRETE of drainage trenches were lined after the floor had been topped. Epoxy resin formulation was filled to make it hang vertically.

to most acids, akalies, chemicals and solvents.

Mix Is Prepared

Two parts of resin and one part hardener were mixed in 3-gal. lots. A proportionate amount of 30 mesh sand then was added and mixed with a powered stirrer to make an easily trowelable mortar. One gallon of Hycon and 45 lbs. of sand will cover approximately 32 sq. ft. of concrete to a depth of ⅛-in. on fairly smooth surfaces.

Application. The floor first was surfaced to an average depth of ⅛-in., but in the areas of aggregate exposure, the topping was troweled as deep as 1½-in. While the epoxy was still wet, additional 30 mesh sand was sprinkled to excess onto the surface. This sand bonded to the resin and provided a non-skid, non-slip surface. The loose sand was swept up after the epoxy hardened.

The 6-in. wide drainage trenches were lined after the floor was completed. They are 8-in. to 24-in. deep and run the full length of the room. The epoxy resin was thickened with suitable fillers to give it a non-sag property. It was troweled on the bottom and up the sides of the trench to the edges of the steel boundary angles. A mixture of resin and hardener alone was brushed to a thickness of 1/32-in. onto the angles and over their edges.

Floor Is Ready Soon

At 77 F., the resin hardens in 8 hours for foot traffic and in 4 hours for pneumatic-wheeled vehicle traffic. Higher temperatures will speed hardening time. The epoxy is not applied at temperatures below 60° F.

Maintenance should pose no problems in the ingredients room because the epoxy topping can be cleaned repeatedly with water and detergents. Even if the surface is mechanically damaged, repairs can be made easily by merely filling in the area with a mixture of Hycon and sand.

Companies & Plants

D & D Foods, Inc., Wenatchee, Wash., is introducing fruits packed in honey under the Black & Gold label. Items include cherries, apricots, peaches, pears, purple plums and apples.

Nalley's, Inc., Tacoma, Wash., has announced a major advertising campaign that will feature a consumer contest for $101,000 in prizes.

Seafare Corp., Los Angeles, Calif., is introducing a popular Hawaiian fish food, "Mahi Mahi," throughout southern California. It's packaged in 12 oz. cartons with the red and white Carnation Seafoods' colors. No special preparation is necessary; it should be cooked like any fillet.

Foremost Dairies, Inc., San Fran-

cisco, Calif., has franchised Golden State Co., Inc., Manila, Phillipines, to manufacture butter, processed cheese, and cheese foods under the Golden State trademark.

Lane Foods, Inc., Denver, Colo., a newly formed firm, will pack and distribute a complete line of salad dressings, barbecue sauce, spaghetti sauce, frozen convenience pastries and frozen convenience entrees. Lindsey L. Vance is president, Lawrence E. Frickey, vice president, and Donald H. MacManus, national sales manager. Production facilities are in Council Bluffs, Ia.

Good-ee Potato Chip Co., Vancouver, Wash., is planning to lease production facilities in Spokane, Wash. The firm is now building a new plant at Vancouver, and expects to use the former equipment for the plant in Spokane.

Diamond Walnut Growers, Inc., Stockton, Calif., recently devoted its plant to packing rice in 2-lb. cellophane packages for a period of 12 days. The 5,000,000 lbs. thus handled on the nut cooperative's automatic packaging machinery were put up under contract to the U.S. Government, to supply rice for distribution to needy families.

Carnation Co., Los Angeles, Calif., will no longer produce evaporated milk at its Nampa, Idaho, plant. The facility will be converted into a can factory.

Country Gardens, Inc., Warden, Wash., frozen potato processor, is adding a new zero storage warehouse to its plant with a capacity of 2½ million pounds.

Libby, McNeill & Libby, Chicago, Ill., is planning to transfer to two of the Hawaiian Islands the pineapple operations that had previously taken place on three islands. All growing operations will go to Molokai and canning to Honolulu.

Chef Reddy Foods, Yakima, Wash., hit by fire last April, has started production of frozen French fries on a processing line that includes all stainless steel equipment.

Wapato Fruit Products is the new name of Wapato Evaporating Co., Wapato, Wash. Formerly a dried fruit packer, the firm now processes tomato juice, apple juice and sliced apples.

Yakima Valley Grape Producers, Inc., Grandview, Wash., has just completed a three-unit plant following a three year rebuilding program. The new structures, totaling 26,000 sq. ft. of floor space, include a packaged goods warehouse, a pressing and preparation room, and a bottling department. The grower's coop primarily packs bulk juice.

The **Springbrook Packing Co.,** Springbrook, Ore., will double its pack in 1961, processing about 5,000 tons of fruits and vegetables. Its diversified operation includes dehydrated prunes, brined cherries, and canning and freezing. The principal expansion this year comes in the pack of Blue Lake beans.

Centralia Fruit Farms, Centralia, Wash., is completing a 10,000 sq. ft. addition for packing vegetable products. The initial pack will be frozen corn. A new freezing belt is being added to refrigeration facilities this fall.

Nestle Company, Inc., White Plains, N. Y., is planning to expand its new Salinas, Calif., plant. New equipment will double the capacity of the plant's condensery where milk is processed for milk chocolate products.

Men in the News

Sivert Miller, formerly with Prosser Packers, Prosser, Wash., has been named production manager of Country Gardens, frozen potato processor

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of Warden, Wash.

Rudy Loeffler has been appointed general sales manager of California Vegetable Concentrates, Inc., dehydrated food manufacturer of Huntington Park, Calif.

Paul DeDomenico has been named national sales manager of the Golden Grain Macaroni Co., San Leandro, Calif.

Richard F. Bagley has been elected vice president and member of the board of directors of Gerber Products Co., Fremont, Mich. He has been western regional sales manager for the baby food firm since 1957.

E. Clayton Shelhoss, controller, has been named regional sales manager, Schilling Div., McCormick & Co., Inc., San Francisco, Calif. His area will include northern California, Oregon, Washington, Idaho, Nevada and Utah. **H. H. Baker** will replace Mr. Shelhoss as controller.

Arthur A. Kattan has been appointed marketing manager of Laura Scudder's Foods, Monterey Park, Calif.

John H. Webster has been named Pacific regional manager, Kellogg Co., Battle Creek, Mich. Replacing him as manager of the Los Angeles division is **Robert H. Waterfall.**

William D. Randolph, general counsel and manager of the legal division, Hunt Foods and Industries, Inc., Fullerton, Calif., has been elected vice president. **Julia R. Mayer,** a director, was elected secretary of the company.

Frank Coleman has been named general manager of Blue Ribbon Growers, fresh and canned fruit packing cooperative of Yakima, Wash. He replaces **Noel Baake** who retired.

M. L. Lankford

D. E. Loy

Marion P. Lankford, formerly assistant editor of *Food Processing* magazine, has been appointed technical sales representative of Vacu-dry Co., producer of low-moisture foods and dehydrated vegetables of Emeryville, Calif.

Don E. Loy has been named western district manager of Pacific Hawaiian Products Co., Inc., Los Angeles, Calif., makers of Hawaiian Punch. Mr. Loy replaces **Lewis L. Lacy** who is now national sales manager.

Victor R. Smith has been elected president of Smith Frozen Foods of Oregon, Smith Frozen Foods of Idaho, and Smith Canning & Frozen Foods Co., Pendleton, Ore. He succeeds his brother **Milan D. Smith** who became executive vice president and secretary of National Canners Assn.

Keith Erdman, general manager of Idaho operations, American Potato Co., San Francisco, Calif., has been promoted to vice president. He will headquarter in San Francisco. Succeeding him in Idaho will be **Roy Roberts.**

Anthony P. Geerke, formerly a foreman at Calif. Packing Corp.'s Hastings Ranch, has been named agricultural manager for South African Preserving Co. (Pty.) Ltd., a Calpak subsidiary.

W. B. Thomas has been promoted by Libby, McNeill & Libby from assistant research director in Honolulu, Hawaii, to assistant to the general manager of the Hawaiian operations of the company.

Dr. P. D. Caldis, for 35 years employed in agricultural research by Calif. Packing Corp., San Francisco, has retired as director of that department. Dr. Caldis, born in Smyrna, Turkey, came to the United States in 1919, and joined Calpak in 1926.

C. H. Cunningham has been given a special assignment by Calif. Packing Corp., San Francisco, as assistant to D. K. Garrison, district superintendent of canneries. **Robert E. Crawford** succeeds Mr. Cunningham as administrative assistant to Donald T. Saxby, Calif. division manager. **Frank Calgano,** in turn, moves into Mr. Crawford's post as superintendent of plant No. 12, Sacramento, Calif.; **Robert W. Jeffrey** becomes assistant superintendent at plant No. 11, Sacramento, in Mr. Calgano's place; and **Robert E. Mitchell,** formerly preparation foreman at plant No. 8, San Leandro, is transferred to Mr. Mitchell's former position as general foreman at plant No. 12.

Henry J. Tonini has been elected assistant controller of Dole Corporation, San Jose, Calif.

Robert J. Crampton has been named to the newly created position of product manager-gourmet spices, Schilling Division, McCormick & Co., Inc., San Francisco, Calif. Replacing him as market research manager is **Lawrence Lockwood.**

Deaths

William L. Stirn, 45, former sales manager of Stokes Canning Co., Denver, Colo.

Fred M. Drew, 67, president of U.S. Products Corp., Ltd., San Jose, Calif., and past president of Canners League of California.

Board & Committee Reports

The proposed market allocation percentages for California's 1961 almond crop have been announced by USDA. The percentages were recommended by the **Almond Control Board.** Under the proposal, 80% of the crop will be designated as "salable" and the remaining 20% will be diverted into surplus outlets.

USDA has selected nine members of the **Walnut Control Board** and their alternates for a two year term ending June 30, 1963. Grower members and alternates are: Hugh G. Merriam, Waterford, Calif., and Gus Malmquist, Concord, Calif.; T. B. Roberson, Escalon, Calif., and R. S. Grether, Camerillo, Calif.; C. C. Anderson, Linden,

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Calif., and W. Hampton Dozier, Lodi, Calif.; and Delmar E. Peake, Eugene, Ore., and Joe N. Varner, Gaston, Ore. Members and alternates representing walnut handlers are: Paul A. Dobson, Exeter, Calif., and Arnold Frew, King City, Calif.; Marcel Casenave, San Francisco, Calif., and Haig C. Berberian, Modesto, Calif.; A. L. Buffington and Richard J. Tutt, both of Stockton, Calif.; Milton D. Johnston, Milwaukis, Ore., and D. Leo Gholson, Tigard, Ore.; and Frank S. Guerra, Hollister, Calif., and John J. Lindsey, Concord, Calif.

Sliced Spinach Is Offered by Watsonville Firm

Frozen sliced spinach is a new product recently introduced by Watsonville Canning Co., Watsonville, Calif. The product is produced by removing the horizontal cutters from the choppers after blanching, and thus producing half-inch slices.

Having the convenience of chopped and the consistency of small-leaf spinach, the new pack is proving particularly popular for portion serving. It has been packed so far primarily in institutional sizes, but a retail carton also is contemplated. It is priced on a level with leaf spinach, and is offered under both packer brand and private label.

FROZEN SLICED SPINACH in this institutional pack of 3 pounds is proving popular because of ease in portion-control.

AAAS/IFT Meeting Planned for August of 1962

Pacific Division, American Assn. for the Advancement of Science, has invited the five Pacific Coast sections of Institute of Food Technologists to join in presenting a program on food at the next regional AAAS meeting.

The session will be held at Corvallis, Ore., in August of 1962. Participating will be the British Columbia, Washington, Oregon, Northern Calif. and Southern Calif. organizations of IFT.

Booth Will Move Its Headquarters

F. E. Booth Co., Inc., California canning organization, in mid-October will move its head offices from the present location (280 Battery St., San Francisco, Calif.) to the new address of 3150—3rd St., San Francisco.

The company will occupy a building at that location which it has recently acquired, and which will provide both office space and warehouse room. The structure is adjacent to the Islais Creek cannery owned by Booth.

The company has recently completed enlargement of the Islais Creek plant, to provide improved receiving, thawing and cooking facilities for tuna. An early shipment handled in the new department was 570 tons of fish caught by Japanese fishermen in the Atlantic and shipped by refrigerated freighter from West Africa.

Hallberg Ups Juice Output

To celebrate its 75th season in the apple business, O. A. Hallberg & Sons has materially improved its juice facilities at its plant at Graton, near Sebastopol, Calif.

A new building has been erected to house the juice operations. Installed here is a complete new line of Standard-Knapp packaging machines, including a vertical bottle labeler, a case packer, and a case gluer and sealer. The new department will permit greater output not only of apple juice and cider, but also of the firm's apple-boysenberry juice and boysenberry syrup.

To help merchandise these products, the company now makes both juices available in six-packs.

It was in 1886, three-quarters of a century ago, that John Frederick Hallberg planted his first apple trees in the Sebastopol area. His first apple processing experience came in 1890, when he built a dryer on his land.

Realignment takes Place at Sebastopol Cannery

Now that Sebastopol Cooperative Cannery (Sebastopol, Calif.) is operating two apple canneries, the executive personnel has undergone some changes and reassignments, according to William A. Overstreet, general manager.

In the head office, Louis DeMartini continues as salesmanager, while Melvin Davis is now assistant general manager, and Carl Christiansen is traffic manager.

At Plant No. 1 in Sebastopol, Clarence King is superintendent, with Lloyd Dillaha assistant. At Plant No. 2, north of the city, Charles Williams is superintendent, assisted by Gerald Davis.

Scholarships & Awards

Oregon State University, Corvallis, has announced that the following have given scholarships and awards to entering freshmen: Institute of Food Technologists; Blue Lake Green Bean Canners Inc.; Northwest Packing Co.; Lamb-Weston, Inc.; Stayton Canning Co. Coop.; Blue Lake Packers, Inc.; Oregon Dairy Industries; IFT-F. Ritter & Co.; IFT-Gerber Baby Food Fund; Northwest Canners and Freezers Assn.; Campbell Soup Co.; Ernest Weigand, retired food technology head, Oregon State University; and Bill Lenderking of Lily Tulip Cup Corp.

New Officials at Watsonville

Richard A. Shaw, general manager of Watsonville Canning Co., frozen food packer of Watsonville, Calif., has formed a staff of associates to aid in handling the firm's increased volume.

George Morley, who joined the firm two years ago after experience with Topco Associates, has been named salesmanager and assistant to Mr. Shaw. Fermin Tavarez, who joined the company 15 years ago, has been promoted to traffic manager. Pat Layhee, whose background includes associated with Shasta Freezers and with John Inglis Frozen Foods, has been named production manager.

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Walnut Growers Ad Campaign To Include Magazine Tie-Ins

The 1961 fall-winter advertising plans for the Diamond Walnut Growers, Inc., of Stockton, Calif., have been announced. The plans include an October - November magazine tie-in campaign with the Nestle Company and a General Mills tie-in cake feature in the November *Ladies Home Journal*.

Consumer magazines and Sunday supplements will carry the bulk of the advertising along with a special radio campaign. A heavy program of sales promotion and publicity is also planned.

Pinocchio Label

Escalon Packers, Inc., Escalon, Calif., has adopted a newly designed label for its Pinocchio brand Yellow Sliced Freestone Peaches. The label utilizes a caricature figure of Pinocchio together with a color vignette of the product. Supplier: Muirson Label Co., New Haven, Conn. Designer: Michael Angelo.

Instant Drink

Pacific Hawaiian Products Co., Fullerton, Calif., has introduced a new concentrate in California and Arizona — QuickWay Instant-Drink. Flavors include orange, grape, lime and lemon, and fruit punch. The pint bottle makes 16 drinks when five parts of water have been added. No sugar is needed. Bottle Supplier: Owens-Illinois Glass Co., San Francisco, and Glass Container Corp., Fullerton, Calif. Closure Supplier: Ball Brothers Co., Inc., Muncie, Ind. Label Supplier: Security Lithograph Co., San Francisco.

News of Western Suppliers

Companies & Plants

Ferry-Morse Seed Co., Mountain View, Calif., has expanded its facilities and established a national research headquarters in San Juan Bautista, Calif.

Kaiser Steel Sales Corp., Oakland, Calif., a newly formed, wholly-owned subsidiary of Kaiser Steel Corp., has opened an office in Honolulu. The new sales office will be headed by George C. McMlintock.

Hamerslag Equipment Co., South San Francisco, Calif., has formed a new subsidiary, Heco-Pacific Manufacturing, Inc., to engineer and manufacture materials handling equipment. The firm will produce automation systems, overhead crane and conveyor installations, and electronic components for customized materials handling installations. Jay Platt Hamerslag, Jr. will be chief executive officer of the new subsidiary.

The **Northwestern Ice & Cold Storage Co.,** with main offices in Portland, Ore., is constructing a cold storage warehouse adjoining the properties of Lamb-Weston at Borah Station, American Falls, Idaho. The size of the cold storage is identical with that of the Lamb installation, 300 ft. x 240 ft., with approximately a 21 ft. piling height. The unit refrigerating installations are located in the ceiling. It will have 72,000 sq. ft. of floor area and an approximate storage capacity of 30 million lbs. It is expected to be completed by the end of October.

Ringsby Truck Lines, Denver, Colo., has purchased 12 new refrigerated trailers. The truck-trailers are 40 ft. Brown BVR-5W units equipped with urethane.

Prodeva, Yellow Springs, Ohio, announces the availability of a new line of electric can and bottle crushers in two series—standard or heavy duty. The heavy duty model crushes up to 5,000 five-gallon cans or gallon jugs per hour. The unit may be incorporated into specific building plans, with gravity chutes or conveyors to guide materials into it. Peterson & Peterson, Berkeley, Calif., will act as the manufacturers representative on the west coast.

Men in the News

Rex W. Grabill has been elected president of Ferry-Morse Seed Co., Mountain View, Calif. He succeeds **James Pottinger** who has retired.

Arnold F. Cornett has joined the sales staff of Wm. J. Stange Co., Chicago, Ill., manufacturer of spices, seasoning and food coloring. He will represent the firm in Southern California.

James P. Gray has been appointed sales representative - San Francisco area, Fritzsche Brothers, Inc., New York City, supplier of essential oils, aromatic chemicals, and fragrance and flavor compositions.

Richard F. Schmidt has been appointed assistant sales manager of the Los Angeles folding carton plant of Container Corporation of America, Chicago, Ill.

D. E. McCrory

P. S. Hill

Dean E. McCrory has been appointed assistant district sales manager at Tacoma, Wash., for Pennsalt Chemicals Corp., Philadelphia, Pa. He replaces **Ralph C. Schaeffer** who was named district sales manager at Salt Lake City, Utah.

Philip S. Hill has been named president of Hyster Company, Portland, Ore. He succeeds **Ernest G. Swigert** who was appointed chairman of the board and chief executive officer of the company. **Harvey N. Black** was elected senior vice president.

Horace M. Blinn, vice president, Continental Can Co., San Francisco; **Paul L. Davies,** chairman of the board and executive officer of FMC Corp., San Jose; **Fred Rooney,** manager, FMC Corp., San Jose; **W. L. Keady,** president, Fibreboard Paper Products Corp., San Francisco; and **R. C. Stolk,** vice president, American Can Co., San Francisco, have been named to the board of industrial advisors of the 1962 Western Space Age Industries & Engineering Exposition to be held at San Francisco's Cow Palace, April 25-29, 1962.

COMBINE is shown as it appeared during its recent demonstration in Lille, Belgium.

European Processors View Scott Pea/Bean Combine

A pea and lima bean combine designed for commercial use in Europe has been manufactured by Scott Viner Co., Columbus, Ohio. The combine was recently demonstrated in Lille, Belgium. During the day between 100 and 150 representatives from processors and growers throughout Europe attended the demonstration. England, France, Sweden, Denmark, Belgium, Holland and other countries were represented. The demonstration was sponsored by International Machinery Corp. of St. Nicolas-Waes, Belgium. This firm will handle the sale of the Scott combine in Europe. The demonstration brought very favorable comments from those attending. It was felt that the combine is far superior to ones now being used in Europe.

Following the demonstration, the machine was shipped to Findus in Bjuv, Sweden. It will be operated here for the rest of the pea harvest season.

The Scott Viner Company is now completing shipment of over 200 combines for the 1961 season. The bulk of these are for U. S. and Canadian use, but about 20 will be shipped to Australia and New Zealand. The combine has been used successfully in these two countries for the last two seasons.

Post Harvest Changes in Veg. & Fruits Are Studied by USDA

A laboratory for basic research on post harvest physiology of fruits and vegetables has been established by USDA at Beltsville, Md. The laboratory will be concerned primarily with biochemical investigations on plant cells and tissue. Its purpose will be to determine chemical processes as near the seat of interactions as possible.

It is hoped that this research will develop basic information on physiological changes associated with the ripening and aging in fruits, vegetables, and other plant material after harvest. Investigations will be made under conditions that may be encountered in marketing, storage and transportation.

Plant physiologists assigned to this laboratory are Drs. Morris Lieberman, Charles C. Craft, and James E. Baker. The laboratory is located at the Plant Industry Station in Beltsville.

Clemson Horticulturist Is Searching for New Pea Variety

A new pea variety intended for commercial processing is being researched at Clemson College in South Carolina. Dr. W. L. Ogle, associate horticulturist at Clemson, has been conducting plant breeding research with southern peas since 1952.

According to Dr. Ogle, several newly developed varieties of peas — one purple-hulled variety in particular — show considerable promise. He also reports that commercial processing firms have indicated keen interest in his work.

But, before a variety can be considered for commercial processing, it

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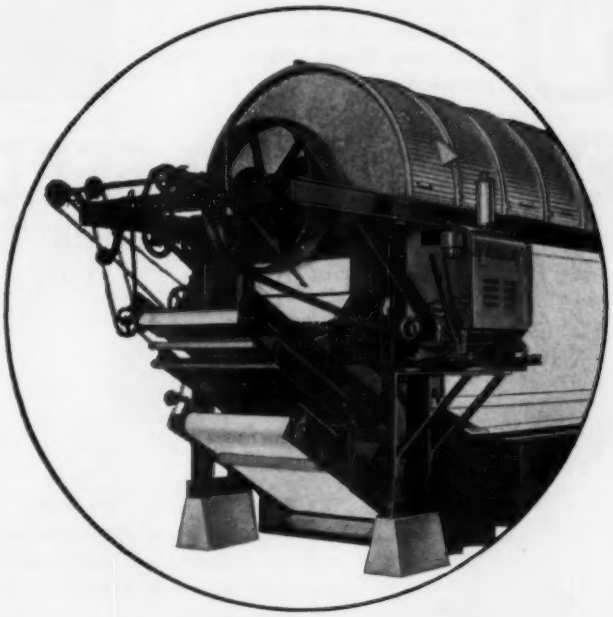

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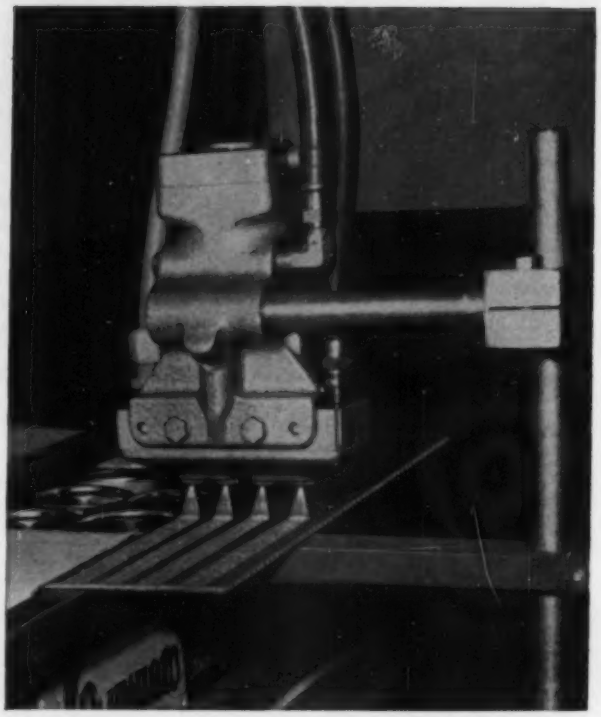

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New concepts in corrugated packaging machinery

See Huntingdon Spray-Kit in action, PMMI Show, Booth 538, Cobo Hall, Detroit, Nov. 7-10

NEW TOP FEED ROTARY PUMPS

with EXCLUSIVE RESILIENT ROTORS for PRODUCTS DIFFICULT TO PUMP!

ROUND INLET PUMPS use single or five-lobe rotors

RECTANGULAR INLET PUMPS use five-lobe rotors only

A EXCLUSIVE

CP Top Feed Pumps are being used for handling a variety of viscous products such as potato salad, cookie dough, meat emulsions, pie fillings—if it flows by gravity—CP can pump it!

Standard opening top feed pumps available in capacities from 10 GPM to 100 GPM. Rectangular opening, hopper fed pumps in two sizes. No. 3—5.3 square inch opening and No. 6—27 square inch opening with capacities to 100 GPM at 100 PSI.

NEW ILLUSTRATED BOOKLET gives details, engineering specifications, performance data on CP Top Feed Rotary Pumps. Write for your free copy of Bulletin A-1-525 today.

SEND FOR COMPLETE INFORMATION

THE *Creamery Package*® MFG. COMPANY

General and Export Offices: 1243 W. Washington Blvd., Chicago 7, Illinois
Branches in 23 principal Cities
Creamery Package Mfg. Co. of Canada, Ltd., 267 King Street, West Toronto 2B, Ontario

adaptability to mechanical harvesting; wilt, nematode and cudculio resistance; and high yields per acre.

Dr. Ogle believes that if the pea research succeeds, it could have a tremendous impact on the economy of the entire southeastern region.

Growers Use Hand Mallets for Thinning Apricots

Hand mallets proved to be the best means of thinning apricots in San Benito County, Calif., this spring. According to Farm Advisor Ronald H. Tyler, the mallets were more efficient, faster and less expensive than hand thinning, stocks or mechanical shakers.

The mallets have 3-ft. wood handles and rubber heads that are 8" long and 5" in diameter. Because of their length and lightness, they can be wielded from positions on the ground or in the crotch of the tree. Only light blows are needed to thin trees. Careful use of the mallets is important because if the tree limbs are bruised, diseases common to the apricot can be spread.

Apricot growers adopted the mallet technique after viewing trials conducted on the Dominic and Sam Lomanto Ranch at Hollister, Calif., during the last two years.

Research Resumes

Potatoes treated with MH-30 to prevent **storage sprouting** do not require special "sprout - treatment" labeling which the FDA now requires, according to the Naugatuck Chemical Div., U. S. Rubber Co. The FDA regulations do not apply to MH-30 because it is sprayed on the potatoes before they are harvested.

Ways to **cut spoilage of pea beans during bulk storage** are described in a report published by USDA. A free copy of "Aeration of Bulk-Stored Pea Beans" is available from the Office of Information, USDA, Washington 25, D. C.

New label claims for the use of **Thiodan (R) insecticide** on sugar beets have been accepted by USDA. Niagara Chemical Div., FMC Corporation, reports that the chemical can now be used to control two pests of economic significance to sugar beet growers—webworm and green peach aphid.

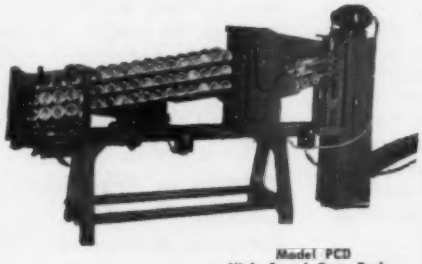
Ethion pesticide can now be applied to field corn to curb mites, according to Niagara Chemical Div., FMC Corporation. USDA has accepted a label claim for the use of ethion as a control for two-spotted spider mite and Pacific mite.

The Nestle Company has introduced a new type of **industrial waste disposal system** in Sunbury, Ohio. Plant waste — mostly coffee-colored water extracted from fresh-brewed Nescafe instant coffee—flows into a 750,000-gal. artificial lagoon. The solids settle to the bottom. The liquid is then pumped to a Nestle owned 10-acre field where it is sprayed over the ground and quickly absorbed.

An improvement in the control of European corn borer on sweet corn is possible with new recommendations for **EPN insecticide** (Ethyl p-nitrophenyl thionobenzene phosphate). The recommendations were recently accepted for registration by federal authorities. As much as double the previous rates is now recommended up to within 14 days of harvest.

See this space next month for our regular every-other-month department.
Food Technology

GIVE YOUR PLANT **PACKING AUTOMATION**
WITHOUT AUTOMATION'S COST!



Model PCD
High Speed Case Packer

BURT High-Speed CASE PACKERS
. . . give higher production speeds without manual effort!

Operator simply places case over funnel chute . . . one stroke fills a 24 can, 2 layer case . . . case is upended automatically. Time: 3 seconds! Result: Lower costs!

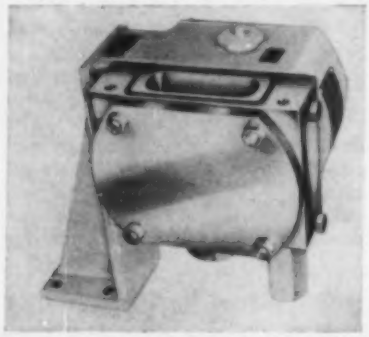
BURT
BURT MACHINE COMPANY
401 East Oliver Street Baltimore 2, Md.

NEW EQUIPMENT/SUPPLIES

Top Feed Pump

DESCRIPTION: Pump will handle a variety of products, including meat emulsions, cookie dough, pie filling and other viscous fluids. Trade name: CP No. 3 Top Feed Rectangular Inlet Rotary Pump.

FEATURES: It has a 5.3 sq. inch rectangular top feed opening and resilient,



five-lobe rotors which allow it to handle a variety of viscous fluids.

MFR.: Creamery Package Mfg. Co., 1243 W. Washington Blvd., Chicago 7, Ill.

Triple Agitator

DESCRIPTION: This agitator can be used with three standard steam-jacketed kettles. Trade name: Hamilton Type-TD, Triple Duty Agitator.

FEATURES: The agitator can be operated with three components that work together for mixing or with one or two components removed for prod-

ucts that require only stirring action.

MFR.: Hamilton Kettles Div., Brighton Corp., Dept. AH, 820 State Ave., Cincinnati, Ohio.

Apple Sauce Machine

DESCRIPTION: A high-speed, high temperature, pressure cooker designed for apple sauce production.

FEATURES: A working model, recently manufactured, will enable horticulture personnel to run two grades of apples simultaneously at the rate of two to three bushels per minute. A production size machine could run 5 or 6 grades. Cooking time, formerly a lengthy process, will be substantially reduced by this pressure cooking method.

Aluminum Foil Tray

DESCRIPTION: Three - compartment aluminum foil tray (#918-35) was designed for vending machine operations, institutional feeding, restaurant carry-out, and school lunch programs.

FEATURES: Heat conductivity and retention qualities of aluminum foil makes this a good meal platter because food is kept warm for a long period of time. The compartments separate the entree from the vegetables and the consumer can eat directly from the container.

MFR.: Foil & Container Div., Kaiser Aluminum & Chemical Sales, Inc., 300 Lakeside Dr., Oakland 12, Calif.

Packaging Machine

DESCRIPTION: This machine packages a wide variety of products in all types of heat sealable papers, films, and foils. Trade name: Expand-o-Matic.

FEATURES: It is a double tube machine that operates at speeds of up to 200 bags per minute. A rocker arm drive mechanism utilizes the weight of one draw bar to counter balance the other draw bar. Friction, overall weight and wear are reduced because the "self counter balancing" construction eliminates the need for special balancing weights.

MFR.: Hayssen Mfg. Co., Sheboygan, Wis.

Metal Detector

DESCRIPTION: A radio - frequency metal detector designed for use in food and drug processing.

FEATURES: The unit is a high-sensitivity type which detects all metals and alloys, both magnetic and non-magnetic. It provides protection against tramp metal contamination in bulk materials, or in finished products even when packaged if the containers are

non-metallic.

MFR.: Morehouse Machine Co., 1742 6th Ave., York, Pa.

Cartoning Machine

DESCRIPTION: High-speed, horizontal cartoning machine handles lock, glue or tuck style cartons. Trade name: Model HEC Cartoner.

FEATURES: The Machine automatically sets up cartons from the flat, by means of a vacuum feeding device, sends them to a loading station for manual loading, and then closes the filled cartons. It will handle frozen entrees and similar products at speeds up to 75 cartons a minute.

MFR.: Canning Machinery Div., FMC Corporation, P. O. Box 1120, San Jose 4, Calif.

Refrigeration System

DESCRIPTION: The system uses ultra-cold liquid nitrogen (minus 320°F) to maintain food cargo temperatures in delivery trucks, long-haul trailers, and railroad piggyback trailers. Trade name: Polarstream.

FEATURES: The system permits refrigeration as low as —20°F. Polarstream consists of a liquid nitrogen container, thermostat and solenoid control, and distribution piping located in the truck cargo space. If temperature rises above a preselected level, liquid nitrogen is instantly converted to a gas and sprayed throughout the cargo area. The desired temperature is reached in seconds.

MFR.: Linde Co., Div. of Union Carbide Corp., 270 Park Ave., New York 17, N. Y.

Catalogues, Brochures Circulars, Bulletins

Packaging & Shipping: "20 Tested Methods to Improve Packing and Shipping Operations" contains tips, ideas and suggestions for shippers—Better Packages, Inc., Shelton, Conn.

Defrosting: Engineering Data Book 502, a chart listing the Properties of Thermon Heat Transfer Cements, and Thermon Bulletin 300 A all give information about Thermon X-5 and how it can solve defrosting problems in the frozen food industry—Thermon Manufacturing Co., 1017 Rosine St., Houston, Texas.

Frozen Juices Have Highest Score of Multiple-Unit Sales

A study of 63,795 supermarket purchases showed that 22.4% of all purchases were multiple. For this study, multiple was defined as more than one package of the same item being bought at one time by the same shopper.

The highest score was made by frozen fruit and vegetable juices; 76.9% of all purchases were multiple. The next high scorer was canned soup at 71.4%.

The next scoring group indicated that half of all sales were in multiple units. Included were items such as: cigarettes, other tobacco products, canned milk, pet food, canned vegetables, dessert mixes and baby food.

The lowest scores were registered by variety breads, sweet rolls, coffee cake, crackers, cookies, pretzels, potato chips, processed meats, fresh fish, vinegar, jellies, cereal, rice and several other grocery items. Less than 10% of all purchases were multiple sales for this group.

—Survey conducted by DuPont & Co., Wilmington, Dela.

Housewives Accuse Food Manufacturers of Mislabeling

Three women appeared recently before the Senate Antitrust and Monopoly Subcommittee and accused food manufacturers of using deceptive labels. The women are Sen. Maurine Neuberger, D-Ore., Dr. Persia Campbell, economics professor and department chairman at Queens College, New York University, and Mrs. Marya Mannes, magazine writer and housewife from New York.

The women protested against tricky advertising phrases such as 'half quarts'; slack-filled packages; hard-to-find statements of net contents and weights; suggested 'best buys' by oversize packaging and misleading terminology; new packages of old products that contain less but cost the same; giant size boxes of same type of products that weigh differently yet sell for the same price; and use of words such as "improved," "activated," and "super" which give the buyer the idea she is getting a better product, therefore justifying a higher price.

Processed Apple Market Is Still On Its Way Up

Per capita consumption of fresh apples has declined 26% between 1949 and 1959. The market for fresh apples during the same period has declined 11%. According the Mabel Flanley, executive director of Processed Apples Inst., the consumption of processed apples has had a phenomenal increase in growth.

Consumption of apple sauce has increased 111%; apple juice, 161%; and apple slices, in spite of competition of frozen slices, 34%.

Miss Flanley states that by 1970, at the current rate of consumption, apple packs will need to be increased by 16⅔% just to keep up with the population growth. With good promotion, if the average family buys just one can, bottle or jar of apple products every 10 days, another 120% increase in production would be required in the next 10 years.

M-M-M NICE! Housewives will get a chance to rest during National Macaroni Week (Oct. 19-28) because "M-M-M Macaroni" translates into Macaroni Meals in Minutes and this will be the theme for the promotion. Quick and easy meals will be featured in a coast-to-coast campaign.

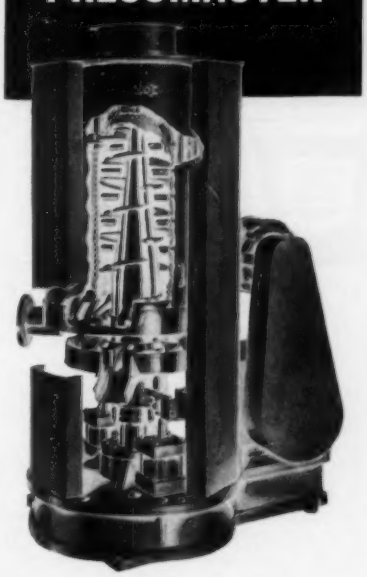
Merchandising Memos

A full-page, full-color, **strawberry-scented ad** in the Levittown-Bristol (Pa.) Times-Courier sold 20,720 package units of Seabrook Farms frozen strawberries and waffles.

Salada Tea has earned a **gold record** from RCA-Victor for "Just Your Cup of Tea," a Boston Pops record. It was custom produced as a Salada premium and was so successful that 6 other records were pressed for the premium offer.

Three 16 oz. pickle varieties of Pesta Foods Inc., Cleveland, Ohio, are packed in a carton with a **consumer premium offer coupon** attached. With this coupan plus $1, Mrs. Consumer gets a plastic tablecloth that retails at $2.75.

DEMAND INCREASES FOR ZENITH PRESSMASTER



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IT'S CONTINUOUS — completely automatic . . . self-adjusting . . . no operator.

IT'S VERSATILE — extracts fluids from virtually all fluid yielding solids.

IT'S ECONOMICAL — greater production . . . lower horsepower . . . better product . . . near zero maintenance.

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FOR SALE—MACHINERY AND EQUIPMENT

1—FMC 10-Pocket Bronze M&S Filler set for #303's. Very good condition. Reasonable. Princeville Canning Company, Princeville, Illinois. Phone DU 5-4328.

FOR SALE—York Hi K Water Cooler and Frick 9 x 9 Compressor with 50 HP motor & starter. W. E. BITTINGER CO. Hanover R. #5, Pa.

For Sale—Kettles, Tanks, Labelers, pumps, fillers, filters, mixers, vacuum pans, case gluers and sealers, cappers, etc. Address all inquiries and send list of surplus equipment. Ace Equipment Co., 6825 S. Kenwood Ave., Chicago 37, Ill.

FOR SALE: 16 Stainless Steel Tanks, from 500 to 3000 gal., vertical and horizontal, some agitated, atmospheric or vacuum type. Specify your requirements; Fifteen stainless steel Single and Double Effect Evaporators 150 to 1785 sq. ft.; Thirteen stainless Heat Exchangers 25 to 250 sq. ft.; 2' x 6' Stokes stainless steel Rotary Vacuum Dryer; Roll Dryers; Vacuum Pans; Homogenizers; Plate Exchangers. Best Equipment Company, 1737 W. Howard St., Chicago 26, Ill. AMbassador 2-1452.

FOR SALE—(2) Angelus 69P Closing Machines for 8 oz. and 303's; (6) FMC 42 x 96" 4-crate Rotarts, complete with controls; (1) 60' Cooling Tank Conveyor System with motor drive. Otto W. Cuyler Corporation, Webster, New York. Phone TRojan 3-1948.

FOR SALE—Dry Bean Canning Line, A-1 condition, S. E. Mighton Co., Bedford, Ohio.

FOR SALE—One Used CP ice cream freezer converted to lard—margarine—egg chiller. May also be used for chilling viscous liquids. Complete with ammonia surge drum and controls. Capacity to 1500 pounds lard (120°-80°) per hour. Contact McClendon, 90 Franklin Street, Nashville, Tennessee, AL 5-0342.

USED MACHINERY FOR CANNERS. Largest stock of Food Machinery. Facilities in Los Angeles, San Francisco and Seattle. Attractive prices, dependable machinery, conscientious service. Cash for your surplus machinery. Terms can be arranged. Your best bet is MACHINERY & EQUIPMENT CO. 123 Townsend Street, San Francisco. GArfield 1-1380.

FOR SALE: 3000 gal. Stainless Steel horiz. sanitary milk tanks. Buflovak stainless steel double-effect evaporators, 1000, 800, 600 sq. ft. (6) 36" Aluminum Filter Presses. 4,500 gallon vertical stainless steel tanks. Buflovak 42" x 120" double drum dryers, ASME 160# WP. York Freon 12 compressor 6¾ x 5, 40 ton. SEND US YOUR INQUIRIES. PERRY, 1405 N. 6th St., Phila. 22, Pa.

For Sale—Langsenkamp Indiana Jr. Pulper, Serial #2895 Model 174 Belt driven, with screens. The Wooster Preserving Co., Wooster, Ohio.

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For Sale—Angelus Can Closer model 75-P, Standard-Knapp 429 Case Gluer and Sealer, Kettles, Labelers, Tanks, Fillers, Pumps, Vacuum Pans, Filters, Pulverizers. Loeb Equipment Supply Co., 830 W. Superior St., Chicago 22, Ill.

HELP WANTED

Sinclair-Scott 3-Sieve Hydro Geared Grader, Model "C", 3 h.p., 220/440 volt, 60 cycle, 3 phase, 9/32", 10/32", and 11/32" perforated sieves. Griffin Mfg. Co., P.O. Box 1610, Muskogee, Okla.

H L H Parade has positions for young men to become understudies in health food plants located in Texas, Arkansas and Iowa. They would be considered for the position of supervisor of all plants. Food processing experience is not required but applicant must possess great mechanical ability and good business judgment. Please send resume to H L H Parade Products Company, Box 1262, Dallas, Texas.

WANTED—Engineer experienced in fillers of all types for filling canned and frozen foods. Must be capable of designing and developing improved and new models. Write W. I. Carlson, Director of Engineering, Chisholm-Ryder Company, Inc., Drawer F, Bridge Station, Niagara Falls, New York. All replies will be held strictly confidential.

Controller wanted — salary commensurate with ability. In other words we are willing to pay a high salary for a thoroughly experienced controller preferably if you have been around canning plants. If you are looking for security and advancement, we are offering a wonderful opportunity. Address B. Hill, President, Hill Packing Company, Topeka, Kansas.

WANTED—A man for the position of assistant to the Sales Manager. The ideal man for this position would be one experienced in sales and/or sales management in the field of machinery and equipment for the canning and freezing industry and thoroughly conversant with those industries either by having worked in them or sold to them. This man would have added value if he were specifically experienced in the engineering and application of heat exchange and the processing of canned food stuffs. This position also entails the ability to handle advertising and the creation of sales literature. Write—E. McKinley, Sales Manager, Chisholm-Ryder Company, Inc., Drawer F, Bridge Station, Niagara Falls, New York—giving full details of experience, salary desired, etc. All replies will be kept strictly confidential.

COMPTROLLER—Fine salary and opportunity for rapid advancement. Large independent canner with several canneries over the country. State age, experience. Answers strictly confidential. Box 41061.

WANTED—Quality Control man to take complete charge of volume fruit and vegetable pack. Must have experience and degree in food technology. Box 11061.

MANAGER WANTED: FRUIT PROCESSING PLANT. Canning Experience necessary, also, management ability. Write giving full personal data—expected starting salary—past working experience. Plant is located in Southwestern Michigan. Box 51061.

PLANT MANAGER—Experienced in Poultry canning. Poultry buying helpful. Relocate to Southwest. New modern plant. Salary commensurate with experience. Send full resume and recent photo to Box 1262, Dallas, Texas.

POSITIONS WANTED

Swiss, 26, college graduated, seeks post as trainee or assistant superintendent in modern canning plant. Wide practice in vegetable, fruit, pickle and preserves processing. Has good knowledge in pilot plant operation. Could arrange exchange to Switzerland. Box 21061.

BUYER 25 years' experience in fresh fruit and vegetables. Good grower relations. Well acquainted in all California districts. Ten years' experience as assistant head buyer. Box 31061.

BUSINESS OPPORTUNITIES

Wanted—Cannery for conversion to canned dog food plant. Either purchase or contract production (seasonal canner might run canned dog food as a fill in item). Territory preferably W. Penna, Ohio, Kentucky, Indiana, Wisconsin or surrounding area. Box 4961.

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COMING EVENTS CALENDAR

October

1-3—**Peanut Butter Mfrs. Assn.**, annual meeting, Shoreham Hotel, Washington, D. C.

9-10—**National Pickle Packers Assn.**, meeting, Drake Hotel, Chicago, Ill.

11-12—**National Wooden Pallet Manufacturers Assn.**, 3rd Western Pallet User's Conference, Hotel Multnomah, Portland, Ore.

11-15—**"Foods of the World,"** trade exhibit, Dinner Key Auditorium, Miami, Fla.

18-20—**Packaging Institute,** 23rd annual national packaging forum, Biltmore Hotel, New York City.

19-20—**American Society for Quality Control,** 16th Midwest Conference, Chase-Park Plaze Hotel, St. Louis, Mo.

19-21—**Florida Canners Assn.**, 30th annual convention, Diplomat Hotel, Hollywood-by-the-sea, Fla.

24-26—**American Dietetic Assn.**, exhibit, Kiel Auditorium, St. Louis, Mo.

29-Nov. 1—**National Agricultural Chemicals Assn.**, 28th annual meeting, The Homestead, Hot Springs, Va.

November

1-2—**Packing Assn. of Canada,** 10th Canadian national packing exposition, Automotive Bldg., Exhibition Park, Toronto, Canada.

5-8—**National Frozen Food Assn.**, annual convention, Americana Hotel, Miami, Fla.

7-10—**Packaging Machinery Manufacturers Inst.**, 1961 show, Cobo Hall, Detroit, Mich.

13-14—**Grocery Mfrs. of America,** 53rd annual meeting, Waldorf-Astoria Hotel, New York City.

13-14—**Wisconsin Canners Assn.**, annual meeting, Schroeder Hotel, Milwaukee, Wis.

13-15—**Georgia Canners Assn.**, annual convention, King & Prince Hotel, St. Simons Island, Ga.

15-17—**Lithographers & Printers National Assn.**, fall workshop meeting, Sheraton Towers Hotel, Chicago, Ill.

15-17—**Indiana Canners Assn.**, annual convention, French Lick, Ind.

20-21—**Pennsylvania Canners Assn.**, 47th annual convention, Yorktowne Hotel, York, Pa.

20-21—**Michigan Canners' and Freezers' Assn.**, fall meeting, Pantlind Hotel, Grand Rapids, Mich.

27-28—**Ohio Canners & Food Processors Assn.**, 54th annual convention, Commodore-Perry Hotel, Toledo, Ohio.

December

4-5—**Tri-State Packers' Assn.**, annual convention, Ben Franklin Hotel, Philadelphia, Pa.

5-7—**Institutional Food Manufacturers Assn.**, annual meeting, Edgewater Beach Hotel, Chicago, Ill.

5-8—**New York State Canners & Freezers Assn.**, 76th annual convention, Hotel Concord, Kiamesha Lake, N. Y.

9-13—**Natl. Food Brokers Assn.**, 58th annual convention and national sales conference, Chicago, Ill.

Merchandising Calendar

Dec. 1-Jan. 31: Fruit Cocktail Flavor Fair (Cling Peach Advisory Board, 153 Market St., San Francisco 5, Calif.).

Jan. 1-Mar. 30: Louisiana Yam Supper Season (Louisiana Sweet Potato Commission, P. O. Box 132, Opelousas, La.).

Jan. 15-Feb. 15: Prune Cake Promotion (General Mills, Minneapolis, Minn. & Calif. Prune Advisory Board, Room 334, World Trade Center, San Francisco 11, Calif.).

Jan. 25-Mar. 1: Hot Cling Peaches for Cold Winter Days (Cling Peach Advisory Board, 153 Market St., San Francisco 5, Calif.).

Feb. 1-10: National Kraut and Frankfurter Week (Natl. Kraut Packers Assn., 202 S. Marion St., Oak Park, Ill.).

Feb. 1-29: Frozen Potato Month (Frozen Potato Products Institute, 333 N. Michigan Ave., Chicago, Ill.).

Feb. 2-17: Take Tea and See Week (Tea Council of the U.S.A. Inc., 16 E. 56th St., New York 22, N. Y.).

Feb. 16-22: National Cherry Week (Natl. Red Cherry Inst., 747 Deerfield Rd., Deerfield, Ill.).

Feb. 25-Apr. 15: 15th Annual Cling Peach-Cottage Cheese Promotion (Cling Peach Advisory Board, 153 Market St., San Francisco 5, Calif.).

Mar. 1-31: Cottage Cheese & Prune Promotion (American Dairy Assn., 20 N. Wacker Dr., Chicago, Ill. & Calif. Prune Advisory Board, Room 334, World Trade Center, San Francisco 11, Calif.).

Mar. 4-10: National Peanut Week (Natl. Peanut Council, Bender Bldg., Washington 6, D. C.).

Mar. 7-Apr. 22: Pickles'n Fish Flavor Pals (Natl. Pickle Packers Assn., 202 S. Marion St., Oak Park, Ill.).

I.F.T. Sections Calendar of Meeting Dates

Western

No. Calif.: Oct. 12, 6 p.m., meeting place undecided but to be in San Francisco, Dr. Glenn G. Slocum, director of microbiology, FDA, Washington, D.C., on "Food Poisoning Problems." Also section awards night.

Oregon: Oct. 6, 3 p.m., a tour of Blitz-Weinhard Co., Portland, Ore., William Hamilton, assistant brewmaster, to discuss the manufacture of beer.

So. Calif.: Oct. 20, 9 a.m., at Huntington-Sheraton Hotel, Pasadena, Calif., 14th annual all-day meeting, various officials of the local, state and federal regulatory agencies concerned with foods to speak on "Food and the Law."

Midwest

Ames: Oct. 12, 1 p.m., at Morrell Packing Co., Ottumwa, Ia., quality control instrumentation in afternoon, with speech by Dr. Harold Schultz, head, food technology, Oregon State, and president of IFT, in the evening.

Chicago: Oct. 7, 10 a.m., at University of Illinois, tour of university food technology facilities and Illinois vs. Northwestern game. Tentative speaker will be L. B. Howard, dean, College of Agriculture, U of I.

Great Lakes: Oct. 13, one-day conference at Kellogg Center, Michigan State University, East Lansing, Mich. Luncheon speaker, Dr. Harold Schultz, head, food technology, and president of IFT.

Indiana: Oct. 13, 6:45 p.m. (social hour and dinner), at Van Orman Fowler Hotel, Lafayette, Ind., Dr. N. K. Ellis, assistant director, Agricultural Experiment Station, Purdue University, on "The Role of the Experiment Station in Food Processing Research." Football game, Purdue vs. Miami of Ohio, Saturday, Oct. 14, 1:30 p.m.

Minnesota: Oct. 2, 6:30 p.m. (dinner and program), at General Mills, Inc., 9200 Wayzota Blvd., Minneapolis, Minn., Mr. Harlan Nasvik & Miss Mabel Martin, both of General Mills, on "Photography in Foods."

Wisconsin: Oct. 27, 4:30 p.m., at Borden Co., West Allis, Wis., speaker (not confirmed) to discuss "Plant Quality Control."

Eastern

Maryland: Oct. 13, 7 p.m., at Friendship International Airport, Baltimore, Md., joint meeting with the Washington section.

New York: Oct. 15, 6 p.m., at the Brass Rail, 40th St. & Park Ave., N.Y.C, Ken C. Tucker, assistant sales manager, Oakite Products, N.Y.C., on "Ultrasonic Cleaning."

Northeast: Oct. 14, 1 p.m., at University of Massachusetts, Amherst, Mass. Speaker will be Dr. John Blackmore, head, dept. of agriculture and food economics, University of Mass.

Philadelphia: Oct. 3, 6:30 p.m., at Dairy Maid Restaurant, Maplewood & Germantown Aves., Dr. Carl Gabriel, Drexel Institute, Philadelphia, on "Some Chemical Aspects of Food Poisoning."

Pittsburgh: Oct. 10, 6 p.m., at Webster Hall Hotel, Pittsburgh, Pa.

Washington: Oct. 13, 7 p.m., at Friendship International Airport, Baltimore, Md., a joint meeting with the Maryland section.

Southern

Bluegrass: Oct. 13-14, 2-day meeting at University of Louisville, Louisville, Ky., a team of Federal Food and Drug personnel from Washington, D.C., to speak on "A Civil Defense Training Program for the Food Industry."

Dixie: Oct. 13-14, 3:30 p.m., at Florida State University, Tallahassee, Fla., a joint meeting of the Florida, Dixie and Georgia sections—FSU football game. Friday night, Dr. Sidney Fox, protein biochemist, will speak, and Saturday morning there will be a research program.

We Can Help Our Post Offices to Serve Us Better

Probably no businessman needs to be told that the U.S. Post Office Department has long faced two serious problems: A performance record which is not satisfactory in many instances, and an expense level which constantly drains off money from the public treasury.

What many of us may not know, however, is that you and I, as American businessmen, can do something to help solve both of these problems.

Since America's mail system is such a vital factor in business, I am sure you will all want to have a share in this effort.

"Five O'Clock Shadow"

The bottleneck to better mail service is in the nation's post offices. Despite new equipment and methods, the bulk of more than 65 billion pieces of mail annually dumped on the mail clerks after 5 p.m. cannot be handled with maximum efficiency.

Particularly responsible for creating this "five o'clock shadow" of mail are businesses and institutions, who hold the bulk of their mail until the close of the business day before sending it to their post offices. Of the nation's present mail volume—enough to fill a continuous train of rail cars from Boston to San Francisco—three-fourths is originated by business and industry.

THE "BOTTLENECK" TO BETTER MAIL SERVICE IS IN THE POST OFFICES–OVERLOADED WITH THE LATE GLUTS OF MAIL

In Pittsburgh, Penna., each day a flood of 1.1 million pieces of mail descends on the Post Office after 5 p.m. In Baltimore, the load is 1.4 million, in New York or Chicago up to 7 millions each. This after-five glut drowns and paralyzes normal post office routines, thus destroying efficiency and multiplying costs.

Join the NIMS Program

To meet this problem, the Post Office Department has launched a "Nationwide Improved Mail Service" program, and it will pay you and me to make sure that our practices are in line with the NIMS recommendations. The three principal points are:

1. Encouraging large-volume mailers to schedule their mailings so they can be handled in the order of importance to them.

2. Greater emphasis on pre-processing of mail in the mail rooms of large mailers.

3. Continuing emphasis on "Mail Early in the Day" and other patron cooperation programs.

Separate Fast and Slow Mail

Under this cooperative program, you are asked to divide your mail priority and non-priority lots.

Urgent business letters will go in one pile, which will be worked in the local post office and dispatched posthaste early the same evening.

Next morning, first thing, the remaining large quantities of non-priority mail will be worked—on a post office floor uncluttered and suited to scheduled use of men

UNDER THE "NIMS" PROGRAM, MAIL WILL FLOW INTO THE LOCAL POST OFFICE IN AN ORDERLY EFFICIENT MANNER, WITHOUT LOST TIME

and machines with maximum economy and maximum efficiency.

If we add to this program the further step of getting an important part of our mail to the post office early in the day, officials of the government agency think the improvement can be spectacular.

Indeed, Canada already is using such a system, and reports highly successful results.

An American Approach

This sort of cooperative effort to solve a vexing problem is a typical American approach. We aren't waiting for some one in a government bureau in Washington, D.C., to handle the matter—we're taking it into our own hands and getting the job done now.

And it's an effort which particularly deserves the attention of us in the processed food business, because much of our mail needs the most rapid transmission possible, to keep our fluctuating supply and demand in as good relationship as possible.

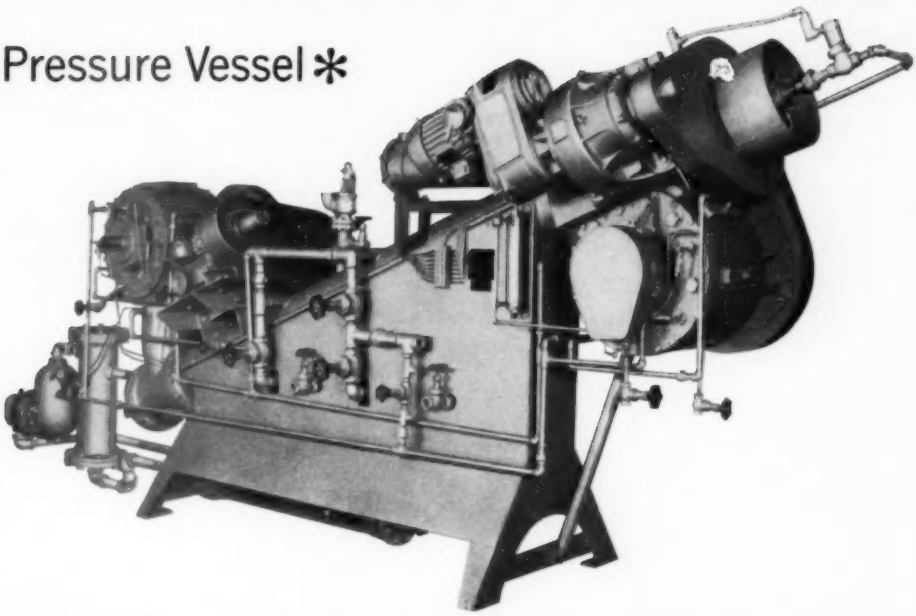
I strongly recommend to each of you, therefore, that you check your own company's procedures, and those of the department with which you are most closely concerned, to make sure that your firm is cooperating fully in this program to speed up our business mail.

Be a NIMSman from now on.

El Stark
Editor

FMC's CPV*

Continuous Pressure Vessel*



OPENING NEW AREAS OF OPPORTUNITY IN FOOD PROCESSING

NOW AVAILABLE FOR A VARIETY OF APPLICATIONS

FOR RENDERING	FOR EXTRACTION	FOR PEELING	FOR COOKING
Inedible animal fats Poultry offal and feathers	Instant coffee Animal bone protein	Potatoes and other root-type vegetables	Cereals For human consumption For dog foods Rice parboiling Soybean thermal processing

*

FMC Continuous Pressure Vessel equipped with stainless steel "Transol"® feed and discharge valves, capable of operation under as much as 120 psig. Built to ASME codes. Control instruments make it fully automatic. Typical input capacity for thorough cooking of cereals: 1400-4000 lbs. per hour, with 3-8 minute exposure at 15-30 psig.

The FMC inclined Continuous Pressure Vessel incorporates many features that combine continuous, automatic operation with high efficiency to reduce costs in large capacity processing of quality-controlled products.

Because information on the commercial application of many products is not available, FMC maintains pilot plant operations which can be used for testing under special arrangements. Product samples and process information can be prepared under controlled production conditions for customer evaluation. Please direct your inquiry to Dept. FP-1, giving full particulars, or call your nearest FMC representative.

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